Young adult parasuicidal behaviour, problematic love relationships, and shame.

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YOUNG ADULT PARASUICIDAL BEHAVIOUR,

PROBLEMATIC LOVE RELATIONSHIPS, AND SHAME

By

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A Dissertation
Submitted to the Faculty of Graduate Studies and Research
through the Department of Psychology
in Partial Fulfilment of the Requirements for
the Degree of Doctor of Philosophy
as the University of Windsor

Windsor, Ontario, Canada

2003

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ABSTRACT

The purpose of this research was to address the absence of psychological theory explaining the nature of young adult parasuicide by moving beyond the generic demographic and epidemiological correlates and developing a more focussed and practically viable conception of the psychological processes involved. Three hundred twenty seven young adults (ages 18-25) were recruited to develop this psychological conception. Building upon past investigation that demonstrated problematic romantic and family relationships were related to depression and suicidal behaviour in young adults, this current research examined three additional developmentally relevant variables. These variables, shame, self diversity, and interpersonal dependence, are conceptually linked with the previously investigated variables, but have only been evaluated in terms of young adult suicide in limited ways. Theoretically it was conceptualized that the suicidal behaviour of young adults would be connected to problems in salient romantic relationships with concomitant shame. These relationship problems would be aggravated by interpersonal dependence and low self diversity, which would be connected to family dysfunction. Important aspects of these theoretical relationships were supported via correlational, regression, and mediational analyses. Romantic problems were related to parasuicide, self diversity, guilt, and depression, but not with shame or interpersonal dependence. Shame was related to parasuicide, family dysfunction, guilt, interpersonal dependence, and depression. Family dysfunction was related to romantic problems, guilt, shame, depression, parasuicide and self diversity, but not with interpersonal dependence. Significant predictors of young adult parasuicide were depression, family dysfunction, and guilt. Analyses revealed that depression and guilt were acting as mediators selectively muting the predictive presence of shame, self diversity, interpersonal dependence, family dysfunction, and guilt. The theoretical and clinical implications of these complex inter-relationships are discussed.
ACKNOWLEDGEMENTS

I wish to take this opportunity to express my deep gratitude to the many colleagues and friends who contributed to the completion of my dissertation. From the initial ideas to realization, their generous support have helped to make this project both interesting and rewarding.

I want to heartily thank the members of my committee, Dr. Michael Kral, Dr. Julie Hakim-Larson, Dr. Dale Rajacich, Dr. Stewart Page, and Dr. David Lester for their assistance and participation in this project. I also want to thank former committee members, Dr. Bill Balance and Dr. Ian Newby-Clark whose participation was unfortunately cut short because of retirement or new career opportunities respectively. My thanks to each of them for their many valuable suggestions and encouragement throughout the lengthy process. Particular thanks go to Stewart Page for his timely involvement in this project following committee attrition. I especially want to thank David Lester for his interest and time in his participation as the external examiner. A great deal of my gratitude goes to my advisor Michael Kral for whom without this project would not have come to fruition. With his endless generosity, valued insight, and staunch support I feel very fortunate to have been able to work with Michael throughout my graduate career and I greatly value his friendship. I would also like to thank friend and colleague, J. Out, as well as Dr. I. Newby-Clark and Dr. K. Kwantes for their patient and expert help with the statistics.

Much thanks goes to my family and friends for their continued belief in me, hope for my success, and tireless support of my graduate training and this project. My deepest gratitude go to Alison (& Lorenzo the wonder-dog) whose continual love and support fills me with wonder and vitality and enabled me to complete this project with my sanity intact.
# Table of Contents

Abstract iii  
Acknowledgements iv  
List of Tables vii  

Chapter I  Introduction  

Introduction 1  
Theoretical and Research Framework  
Developmental Context of Young Adults and Romantic Relationships 3  
The Self System and Self Diversity 9  
Family Dysfunction, Interpersonal Dependence, and Self Diversity 14  
Incidence of Suicidal Behaviour and Depression in Young Adults 17  
Theories of Suicide and Shame 20  
Conceptual Review, Investigative Rationale, and Hypotheses 26  
Hypotheses Regarding Shame, Depression, and Suicide (1-2) 27  
Hypotheses Regarding Romantic Relationship Problems (3-4) 28  
Hypotheses Regarding Family Dysfunction (5-6) 29  
Hypotheses Regarding the Regression (7) and Mediational Analyses (M) 30  

Chapter II  Methodology  

Participants 31  
Measures 31  
Parasuicide 32  
Depression 33  
Romantic Relationships 34  
Family Functioning 35  
Shame 36  
Interpersonal Dependence 37  
Self Diversity 38  
Procedure 39  

Chapter III  Results  

Sample Demographics and Trends 40  
Normality and Reliability Analysis 42  
Shame, Depression and Suicide (1-2) 43  
Romantic Relationship Problems (3-4) 45  
Family Dysfunction (5-6) 46  
Findings Regarding the Regression (7) 47  
Mediational Analysis for Depression (M1) 49  
Mediational Analysis for Shame and Guilt (M2) 54
Chapter IV  Discussion

Introduction 57
Demographic Trends of Young Adult Parasuicide, 58
   Gender, Ethnicity, Para Suicidal Motivation
Shame, Depression and Parasuicide 63
Romantic Relationship Problems 74
Family Dysfunction 78
Conclusion 83

References 89

Appendix A: Tables 1-24 119

Vita Auctoris 144
LIST OF TABLES

1. Demographics for Reported Parasuicidal Behaviour Over the Last Two Weeks 120
2. Demographics for Reported Parasuicidal Behaviour Over the Young Adult Life Time 121
3. Chi Square Analyses of Gender Differences in Suicidal Ideation and Attempt 122
4. Demographic Breakdown Along Ethnicity for Reported Suicidal Behaviour 123
5. Percentage Breakdown of Identified Reasons for Parasuicidal Behaviour For The Last Two Weeks 124
6. Percentage Breakdown of Identified Reasons for Parasuicidal Behaviour Over The Young Adult Life Time 125
7. Reliability Results for the Instruments and Reported Instrument Means, Standard Deviations, and Alphas 126
8. t-tests for Form 1 and 2 of the Measures of Depression, Parasuicide, Family Functioning, Intimacy, Shame/Guilt, Interpersonal Dependence, and Self Diversity 127
9. Correlations Between Measures of Depression, Parasuicide, Family Functioning, Intimacy, Shame, Guilt, Interpersonal Dependence, and Self Diversity (1-6) 128
11. Multiple Regression for Current Parasuicidal Behaviour with Depression, Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity (7) 130
12. Regression Correlations for Life Time Parasuicidal Behaviour with Depression, Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity (7) 131
13. Multiple Regression for Life Time Parasuicidal Behaviour with Depression, Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity (7) 132
14. Mediational Regression (Step 1) Correlations for Current Parasuicidal Behaviour with Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity (M1) 133

15. Mediational Regression (Step 1) for Current Parasuicidal Behaviour with Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity without Depression (M1) 134

16. Mediational Regression (Step 1) Correlations for Life Time Parasuicidal Behaviour with Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity 135

17. Mediational Regression (Step 1) for Life Time Parasuicidal Behaviour with Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity without Depression (M1) 136

18. Mediational Regression (Step 2) Correlations for Depression with Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity (M1) 137

19. Mediational Regression (Step 2) for Depression with Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity (M1) 138

20. Mediational Regression (Step 3) Assessing the Contribution of Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity beyond Depression to Current Parasuicidal Behaviour (M1) 139

21. Mediational Regression (Step 3) Assessing the Contribution of Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity beyond Depression to Life Time Parasuicidal Behaviour (M1) 140

22. Mediational Regression (Step 1) for Shame predicting Depression without Guilt (M2) 141

23. Mediational Regression (Step 2) for Shame predicting Guilt (M2) 142

24. Mediational Regression (Step 3) Assessing the Contribution of Shame beyond Guilt to Depression (M2) 143
CHAPTER I

INTRODUCTION

Historically, and more recently, developmental theory and research have identified young adults as a unique demographic group with particular developmental concerns, and this identification has had implications for psychological theory and practice (e.g., Ahlburg & DiVita, 1992; Arnett, 2000a; Erikson 1950, 1968; 1999; Rindfuss, 1991). This view has stimulated the investigative interests of suicidology researchers (e.g., King 1998; King & Knox, 2000) particularly since the rates of parasuicide (i.e., ideation and attempts) and completed suicide of young adults remains high (Statistics Canada, 2001). Over several decades there has been considerable demographic and epidemiological research on the psychosocial correlates of the suicidal and parasuicidal behaviour of young adults (e.g., rural and urban geography, weather/season, ethnicity, socio-economic status, health/disease, substance abuse) (see Beautrais, 2000; Clark & Fawcett, 1992; Dickstra & Gulbinat, 1993; Dickstra, 1996; King & Knox, 2000; Lester, 1983, 1992; Minois, 1999; Moscicki, 1995; Sakininofsky, 1998; Van Egmond & Diekstra, 1990; Wellman & Wellman 1988). Clearly the suicidal and parasuicidal behaviour of young adults is a complex behaviour with multiple influences. Yet the limits of this type of research are that the resultant probabilistic risk factor models do not provide an adequate explanation of suicide in young adults. What continues to be lacking is a detailed psychological theory that specifically attempts to explain why it occurs (Cornette, Abramson & Bardone, 2000; Joiner, 2000). The purpose of this present research was to move beyond the generic epidemiological correlates and to begin to develop a more focussed, practically viable theoretical conception of the psychological processes involved in the parasuicidal behaviour in young adults. To accomplish this goal, this present investigation therefore endeavoured to examine young adult parasuicide in its developmental, social, and psychological contexts. In previous research this author investigated and
found two important aspects of these contexts. These findings provided the foundation from which new theoretically related factors were proposed and investigated to augment the preliminary understanding of the psychological processes involved in young adult parasuicide.

This previous exploratory research examined developmental and familial factors of young adults that were hypothesised to be related to suicidal ideation and attempts (Oosterhoff, 1998). There were three central novel findings of this study. First, it was found that difficulties in romantic relationships were positively related to suicidal ideation and attempts. In fact it formed the primary reason for thinking about or attempting suicide for the majority of young adults (ages 18-25), in contrast to family difficulties which were the primary impetus for adolescent (ages 13-17) parasuicidal behavior. Second, family problems were found to be positively associated with young adults’ difficulties in romantic relationships and their parasuicidal behavior. Finally third, it was observed that problematic family relationships and depression significantly predicted suicidal behavior in young adults. Romantic relationship problems were not a significant predictor because of truncated variability due to the pattern of responses which revealed an unrealistically high degree of relationship satisfaction. This research provided an initial foray into establishing two psychosocial factors, problematic romantic and family relationships, as specifically involved in the suicidal behavior of young adults.

These findings prompted curiosity concerning the particular nature of problematic romantic and family relationships that connect them to each other and impel some young adults to engage in suicidal behavior. The present research focused on the investigation of three additional variables that are conceptually linked with problematic romantic and family relationships and depression, but that have only been evaluated in terms of young adult suicide in limited ways. These three variables concern shame, self diversity, and interpersonal dependence. The investigation of the theoretically expected inter-correlational and predictive relationships of these variables with young adult parasuicide was expected to add substantially to the previous theoretical framework and expand the current conceptual understanding of the
psychological processes involved in young adult suicide.

The theoretical framework will be developed by reviewing the relevant theory and research of four areas: the developmental context of young adults and romantic relationships; the self system and its diversity; family dysfunction and interpersonal dependence; and finally, parasuicide, shame, and depression. From the theoretical linkages made among these variables several hypotheses and a methodology to assess them will be advanced. Following this, the statistical analyses applied toward this investigation and results of this research will be presented. Finally, to conclude this study an extensive discussion of both the key empirical and theoretical issues that emerge from this research, as well as limitations to it, will be presented.

THEORETICAL AND RESEARCH FRAMEWORK

Developmental Context of Young Adults and Romantic Relationships

Many decades of developmental theory and research reveal significant cognitive, emotional, and physical changes as human beings develop over time (Hetherington & Parke, 1993; Steinberg & Belsky, 1991; Warner-Schaie & Willis, 1991). Several suicidologists have suggested that a developmental approach is important to the understanding of the range of suicidal behaviour across groups (King, 1998; Leenaars, 1991). As developmental theories have increasingly attended to the social and psychological growth beyond childhood and adolescence, many theorists and researchers have focussed on young adult development (e.g., Levenson, 1978; Whitbourne, 1986). Arnett (1999; 2000a), echoing past developmental theorists (e.g., Erikson, 1950, 1968), argued that emerging adulthood (i.e., between the ages of 18-25) continues to be a distinct period of development demographically and psychologically. Demographically, the period of young adulthood is one of the “densest” of any other age group in terms of number of diverse demographic events occurring simultaneously (e.g., changes and decisions regarding mobility, legal status,
marriage/divorce, education, unemployment, mortality, parenthood, independence/responsibility) (Ahlburg & DiVita, 1992; Rindfuss, 1991). The range of these demographic events indicate that this is a time of significant decisions, goals, and changes in young people’s lives. While there are many events that concern young adults, certain issues appear to have greater salience psychologically at this age than any other.

Erikson’s (1950, 1968) seminal psychosocial theory of development asserted that young adult development is primarily concerned with the development and maintenance of romantic adult relationships as an integral part of self-identity development (see also Kamtner, 1988; Marcia, 1993; Orlofsky, Marcia, & Lesser, 1973). Arnett (2000a), in his research, found that in young adulthood the involvement in love relationships becomes more deeply intimate and serious in terms of exploring the potential for further emotional and physical intimacy and long-term partnership. In fact, young adulthood is a time when individuals often have their first tenuous experience of a deep intimate connection with another. Many psychologists have argued that this type of affective relationship satisfies a fundamental human need and is essential to psychological well-being and growth (Baumeister & Leary, 1995; Branden, 1988; Fairbain, 1952; Hazan & Zeifman, 1999; Marcia, 1993; Maslow, 1970; Murray, 1938; Scheff, 1990; Shaver, Hazan & Bradshaw, 1988; Waterman, 1992). The prevalence of this romantic focus has been demonstrated empirically. Takahashi (1990) found that young adults focus a considerable amount of their attention on romantic types of affective relationships over other types of affective relationships (e.g., family, friend, sibling). Roscoe, Diana and Brooks (1987) demonstrated that, in terms of relational motivations for young adults, there is an increased emphasis on companionship, reciprocity, and mate selection over the more egocentric emphases of adolescents and children. Continuing this research, Roscoe, Kennedy and Pope (1987) observed that young adults’ views of intimacy reflected a more mature conception than those of adolescents and was marked by an emphasis on openness, sharing, trust, and sexual relations. Many subsequent authors from diverse theoretical backgrounds, including developmental, attachment, and self-identity perspectives, have empirically and clinically advanced the salience and importance of this intimate
romantic concern for young adults (e.g., Feeney, 1999; Gould, 1978; Hatfield & Rapson, 1999; Marcia, 1993; Michael, Gagnon, Laumann, Kolata, 1997; Paul & White, 1990; Whitbourne, 1986).

With respect to suicide and parasuicide, there are some significant studies that investigate the relationship of suicidal behaviour with a variety of psychosocial variables including relationship problems. Oosterhoff (1998) revealed that the primary, although not the only, reason for suicidal ideation or attempt as a young adult was problems with romantic relationships. Leenaars’ (1989) research on completed suicides revealed that the most frequent content in the suicide notes of young adults concerned romantic loss, and that no other age group demonstrated such frequency. Hawton, Haigh, Simkin and Fagg, (1995a) in an examination of university student suicide cases over a fifteen-year period, reported that the most frequent problem at the time of attempt was interpersonal problems, particularly with partners. Meilman, Pattis and Seilman (1994), in a one year prospective study at a university counselling centre, found that out of fourteen possible issues of concern, the most prevalent for attempts and ideation were relationship difficulties, academic or work failure, recent depression, and social isolation. Research concerning young adults from crises lines demonstrates similar results. De Anda and Smith (1993) found that the primary reason for contemplating suicide was, in order of significance, depression, love relationship problems and family conflict. Hassan (1995), examining the Australian experience sociologically, found that for those under the age of 29, the top three precipitating circumstances for suicide in women were unhappy love, failure in life, and family problems; whereas for men the top three were failure in life, unhappy love, and mental illness. The brief review of these suicidological findings suggest that romantic problems are a common triggering factor in the suicidal behaviour of young adults. This lends credence to the contention that romantic relationship issues and related problems play a significant role in the lives of young adults.

Such a developmental emphasis does not imply that other concerns are not also relevant at this time, but it does confirm that this aspect of a young adult’s life is a poignant focus (Crain, 1992; Millar, 1995). Individual variability within young adulthood exists since young adulthood tends to be a period of
broader exploration regarding relatively enduring choices for love, work, and world views (Arnett, 2000a; Arnett, 1997). In romantic activities, although adolescence is generally considered a time of exploration, a degree of this exploratory trend may continue for a number of young adults before attempting to make more enduring commitments (Arnett, 2000a). Since the period is demographically dense, there is certainly a percentage of young adults whose overriding concern focuses more on work, education, friends, family, or community via their familial, cultural, or personal proclivities. Young adults have been found to identify three criteria that reflect their transition to adulthood: accepting responsibility for oneself, making independent decisions, and becoming financially independent (Arnett, 1997). The satisfaction of these broad criteria may be obtained through many endeavours, like education or work, in addition to romantic activities. In addition, the romantic focus may be normative for Western industrialized societies, but not for other cultures or within culturally heterogeneous societies (Arnett & Taber, 1994; Skolnick & Skolnick, 1997). The work of many cultural theorists and researchers emphasize the importance of tempering generalized psychological theories with respect to other non-Western cultures (Murphy, 1989; Shweder, 1991; Goldberger & Verhoff, 1995; Stigler, Shweder & Herdt, 1990).

This romantic preoccupation of young adults coincides with several sociocultural influences which tend to magnify the focus on, and inflate the expectations for, romantic relationships. One important influence in Western culture is the pervasively disseminated romantic myth that romantic love relationships provide near-complete personal fulfilment (Baumeister, 1991a; Baumeister & Wotman, 1992; Michael, Ganon, Lauman & Kolata, 1994; Peel, 1988). This myth is not simply the banal popular representation of romance; rather, it reflects a significant component of cultural meaning and of a vital experience of the interdependent self (Gillis, 1988; Lakoff & Johnson, 1980; Murphy, 1989). Many theorists and researchers from different disciplines have noted that social and cultural information forms an integral part of individuals’ standards, goals, and expectations (e.g., Bruner, 1990; Chomsky, 1989; Lakoff & Johnson1980; McLuhan, 1964; Searl, 1998). This phenomenon is no different for love (e.g., Lewis, 1992).
The contemporary dissemination of this romantic myth is very evident in all forms of popular media, with movies and television being prime examples (Barnouw, 1990). There is some empirical evidence for the influence of this myth. Idealization of romantic relationships by young adults appears to be high (Oosterhoff, 1998), and it is arguably reflective of unrealistically high expectations for intimate relationships (Baumeister, 1991a, 1991c; Williams & Barnes, 1988). Arnett (2000b) found that young adults' views of their futures with regard to romantic relationships was highly positive (e.g., would be better than their parents) and that, for many respondents, it was seen as the most important or ultimate source of happiness. This romantic myth represents an impossibly high standard which unfortunately can set the stage for unrealistic expectations. While romance and this myth have a long history (see Gillis, 1988; Jay, 1981; or Mann, 2001 for examples), they have been recently exacerbated by social changes in the family and self-definition.

Another influence concerns the structural changes to the family system. In the context of major social changes with respect to gender, sexuality, marriage/divorce, parenthood, abortion, labour, and ethnic diversity over the last half century, the nature of families has undergone significant redefinition (Murphy, 1989; Skolnick, 1991; Skolnick & Skolnick, 1997; Walsh, 1995). While the basic family patterns remain, there has been increased fragmentation and diversity in terms of its definition, functions, and values (Hareven, 1992; Rosen, 1991). In particular there has been an increasing separation and individualization of the generations with the emphasis on work, education, social relations, and self interest that together directs attention away from the family sphere (Ahlburg & DeVita, 1992; Hareven, 1992; Larson & Richards, 1994; Murphy, 1989; Skolnick, 1991). For young adults this focus results in less parental influence and interaction concerning their lives, as well as the creation of, and greater dependence on, a peer culture (Hernandez & Myers, 1993; Skolnick & Skolnick, 1997). The consequence of this decreased familial interdependency is that it leaves young adults with fewer major channels for affection and validation from older familial generations than before. In addition, an individual's familial history will
likely have an important influence on romantic pursuits and expectations. The nature of this influence will be reviewed in detail in the review of family dysfunction that follows below.

A final influence is the increasing emphasis on narcissistic self-definition in Western culture. This emphasis, in the postmodern context of ambiguity and uncertainty in historical sources of value and fulfilment (see Docherty, 1993; Bertens & Fokkema, 1997 for reviews), has created an increasing personal and social investment in the importance of romantic relationships as an essential source of individual valuation and validation (Baumeister, 1991; Bertens, 1997; Giddens, 1991; Rose, 1998; Skolnick, 1991). In fact, there may even be a quality of entitlement to the happiness supplied by love (Franks & Heffernan, 1998). While somewhat personally optimistic, young adults still view the road to adulthood as being very difficult, and they are pessimistic about the economic, political, educational, social, and environmental prospects for their generation (Arnett, 2000b; Mogelonsky, 1996; Skolnick & Skolnick, 1997). This may create an increased emphasis on romantic relationships as an attachment that is within the purview of a young adult’s control and as the criterion of fulfilment over other sources of satisfaction (e.g., Lee, 1988; Murstein, 1988; Peel, 1988). These socio-cultural and developmental influences impinging on romantic relationships help to elucidate the focus and expectations that young adults appear to place on romantic relationships. Despite these expectations, almost every young adult experiences some difficulty in his or her romantic relationships ranging from conflict to breakup. However, responses to such problems vary. While many young adults do not seriously consider suicidal behaviour, a significant number do (Oosterhoff, 1998). This phenomenon raises the question concerning how this romantic focus becomes problematic such that it contributes to suicidal behaviour. Difficulties could emerge if the romantic focus contributed to a narrowing of the young adult’s energy and interests to the exclusion of other areas of fulfilment. This narrowing of focus and potential problems will be examined next in the review of the self and self diversity.
The Self System and Self Diversity

Young adults experience many cognitive, emotional, and social developments which are organized and experienced via the self system. There are a plethora of terms, theories, issues, and models associated with the self and its development (see Allport, 1955; Banaji & Prentice, 1994; Baumeister, 1987; Cooper, 1993; Lipka & Brinthaupt, 1992; Marsh & Hattie, 1996; Prentice, 2001; Sedikides & Brewer, 2001; Tesser, Felson & Suls, 2000). This conceptual mire is due in part to the slipperiness of the concept of the self and related ideas (e.g., identity, personality, ego, individual and social selves). In consequence there is a fair degree of ambiguity and confusion in the nomenclature, and measurement methodology (see Baumeister, 1993; Lipka & Brinthaupt, 1992; and Prentice, 2001 for discussion). A practical way of conceptualizing the self that has achieved a degree of consensus is as an experiential, semi-hierarchical, multi-dimensional psychological system. The various dimensions are organized, semi-integrated, interacting qualities that are experienced in varying degrees in relational contexts (e.g., situationally, developmentally) (Baumeister, 1990, 1991, 1993; Cooper, 1993; Deaux & Perkins, 2001; Harter, 1996; Marsh, Byrne & Shavelson, 1992; Saarni, 1999; Sedikides & Brewer, 2001; Spears, 2001; Strauman & Higgins, 1993). This psychological system is dynamic. Lecuyer (1992), George (1980), Harter (1986,1996), and Showers, Abramson, and Hogan (1998) found that the organization and degree of importance of different elements of the self vary and evolve according to changing ages, developmental stages, and individual differences. In essence, at different times some aspects of the self become more central to the sense of self than others, and they can more greatly affect motivation, behaviour, and esteem, relative to success or failure in these areas.

Structurally, one important general conceptual distinction is between the descriptive and the evaluative parts of the self (Campbell, Assanand & Di Paula, 2000; Lipka & Brinthaupt, 1992; Sedikides & Skowronski, 2000; Simon & Kampmeier, 2001). The descriptive part includes the organized dimensions or contents of the self. The contents can be any organized, meaningful aspect of the person, their experience, or material extensions (e.g., traits, needs, physical features, abilities, relationships, social roles,
motives, possessions, achievements) that are consciously experienced, both individually and socially, and mentally represented. The evaluative component is the conscious self-reflexive aspect that consists of the thoughts and feelings about the contents as part of the self. This aspect provides the fundamental psychosocial regulatory functions for the individual to guide their transactions with others and society (Higgins & May, 2001). With reference to the forthcoming review of shame in this research, important barometers of this evaluative process include emotions like guilt, shame, and general self-esteem (Baumeister, 2000; Marsh, Byrne & Shavelson, 1992; Pelham & Swann, 1989; Reimer, 1996; Sedikides & Skowronski, 2000). Psychotherapy research has noted the importance of these barometers as indicators of psychological well being (Anastasopoulos, 1997; Greenberg & Paivio, 1997; Malan 1996). These two parts of the self are intimately related, in that an individual's knowledge of the various contents of the self is not devoid of an evaluation of the relative importance of the contents or their associated affective valence. Together, these two parts contribute to the experienced part of ourselves - that is to say, our sense of self (Campbell, Assanand & Di Paula, 2000). Pelham (1991) and Pelham and Swann's (1989) research on self knowledge found that the ideographic investment in various self dimensions defined the descriptive and evaluative nature of individual's self and had implications for goals, motivation, and self esteem.

Many self dimensions putatively exist, but a fundamentally important dimension of the self is the relational or interpersonal dimension (Sedikides & Brewer, 2001). This dimension is particularly relevant to this theoretical overview given the developmental focus of young adults on romantic relationships. The concept of a relational dimension of the self has its psychological origins in psychodynamic literature (e.g., Cooper, 1993; Fairbain, 1952; Greenberg & Mitchell, 1983; Masterson, 1980; Mitchell & Black, 1995; Pine, 1990; Wolf, 1988). The idea of a relational aspect of the self is conceived in contemporary theoretical conceptions as that pervasive and central part of the self that is embedded in interpersonal contexts with others and their meanings (Aron & McLaughlin-Volpe, 2001; Baumeister, 1998; Bowlby, 1980; Cooper, 1993; Mitchell, 1993; Pine 1990; Smith & Cohen, 1993; Smith, Coats & Murphy, 2001; Tice &
Baumeister, 2001). This dimension of the self does not develop in a vacuum, but, like other self dimensions, represents the evolutionary interplay of an individual’s complex social, familial, and interpersonal history (Mitchell, 1993). This aspect of the self is central to the self system because it is through an individual’s social relationships that he or she develops a sense of meaning and self. In other words, the experience of self and meaning is fundamentally relationally contingent (Mokros, 1995).

Linking this conceptualization with the developmental concerns of young adults discussed above, the relational dimension of the self system, specifically in terms of developing intimate romantic relationships, becomes prominent. This prominence does not imply that the relational aspect of the self system is not highly relevant throughout the life span (see Baumeister, 1991a; Bowlby, 1980; Erikson, 1950, 1968; Fairbain, 1952; Sarrni, 1999; Sroufe, 1995), only that it undergoes a qualitative shift in focus and becomes pressing in young adulthood. In other words, such a shift in this dimension of the self is something that is felt to be “vital and central to becoming” and not something relegated to the periphery of attention or concern (Allport, 1955, p.39). The empirical research concerning young adults’ increased focus on romantic relationships previously reviewed in the developmental section underscores this shift (Feeney, 1999; Gould, 1978; Hatfield & Rapson, 1999; Michael, Gagnon, Laumann, & Kolata, 1997; Paul & White, 1990; Roscoe, Diana & Brooks, 1987; Roscoe, Kennedy & Pope, 1987; Takahashi, 1990; Whitbourne, 1986). Linking this present discussion to the evaluative dimension of the self recently detailed above, the centrality of this developmental issue suggests that success or failure relationally would relate to the evaluative barometers like self-esteem, shame, or guilt. For example, with regard to self-esteem, a number of researchers (e.g., Juhaz, 1992; Samet & Kelly, 1987; Drigotas, Rusbult, Wieselquist & Whitton, 1996; Ruvolo & Brennan, 1997; Murray, Holmes & Griffin, in press) have found in their reviews and research a positive relationship between strong psychological ties with significant others and robust self-esteem. Concerning shame more directly, Lewis’s (1992) research on the individual differences in situations most likely to generate shame revealed two basic categories for each gender. For young adult
men failure in tasks deemed important (e.g., school or sport performance, earning money) and sexual impotency (e.g., premature ejaculation, erectile failure, and a female’s refusal go on a date) were most relevant. For young adult women a failure in physical attractiveness and in interpersonal relationships (e.g., with boyfriends, husbands, parents, children and friends) were key.

Another structural aspect of the self that bears on this discussion is its diversity or differentiation (Campbell, Assanand & Di Paula, 2000; Donahue, Robins, Roberts & John, 1993; Zajone, 1960). Self diversity concerns the number of valued and successful dimensions (i.e., the contents) within the self (Deaux & Perkins, 2001; Linville, 1985; Pelham, 1991; Showers, 1992; Simon & Kampmeier, 2001; Suleiman, 1997; Zajone, 1960). Developmentally, Harter (1986,1996) and Harter and Monsour (1992) observed in their research that as development progresses the self becomes increasingly diversified into aspects that are associated with different social roles and expectations (e.g., work, romantic relationships, academic performance, parent and friend relationships, athletic ability, appearance). Diversity is important for the self because it relates to the individual’s adaptive flexibility and resiliency under threat and stress (Mitchell, 1993; Suleiman, 1997). A number of researchers (e.g., Linville, 1985, 1987; Showers, 1992; Pelham, 1991; Pelham and Swann, 1989; Morgan and Janoff-Bulman, 1994; Cohen, Pane and Smith, 1997; Niedenthal, Setterland and Wherry,1992; and Dixon and Baumeister, 1991) have found that lower self diversity was associated with a greater negative reaction following various failures that was characterized both by lower self evaluation and esteem, and higher negative affect and illness. Specifically with the romantic relationships of young adults, Smith and Cohen (1993) found that self diversity moderated the degree of negative affective reaction to relationship termination.

In sum, the diversity of the self moderates the deleterious effects of threat and failure. If the self system has a degree of diversity it can then withstand threats and failures in certain self dimensions by accessing other successful self dimensions to ameliorate the negative effects (Linville, 1985; Pelham,1991; Pelham & Swann, 1989). The central idea here concerns the psychological vulnerability potentiated by
‘placing all of one’s self eggs in one basket’, where the limited number of dimensions become the central or defining aspect of the self (Campbell, Assanand & Di Paula, 2000; Linville, 1985; Showers, 1992; Suleiman, 1997). In essence, those who invest themselves in few dimensions of self functioning, either by choice or circumstance, are vulnerable to more problematic reactions in the face of setback or failure in those dimensions. Linking this idea with the previous discussion of the relational self in young adults, it is arguable that if an individual places all of his or her self development in one area, where the romantic relationship becomes the keystone in his or her psychosocial functioning, he or she are then at greater risk for negative effects if threat, setback, or failure is experienced in his or her romantic relationships. Freud (1930/1961) commented on this issue of making any way of life, including love, to be the centre of an individual’s meaning structure.

I am of course speaking of the way of life which makes love the centre of everything, which looks for all satisfaction in loving and being loved...The weak side of this technique of living is easy to see. [First] it is that we are never so defenceless against suffering as when we love, never so helplessly unhappy as when we have lost our loved object or its love...(p.29). [Second] any choice that is pushed to an extreme will be penalized by exposing the individual to the dangers which arise if a technique of living that has been chosen as an exclusive one should prove inadequate. Just as a cautious business man avoids tying up all his capital in one concern, so, perhaps worldly wisdom will advise us not to look for the whole of our satisfaction from a single aspiration. Its success is never certain, for that depends on a convergence of many factors... (p.31)

This discussion begs the question that, besides young adult developmental considerations, what additional antecedent conditions might help to generate such a relational narrowness? An important contributor to this narrowness may be problematic family history. If the sense of self, particularly the relational dimension, is conceived of as a relational achievement, then chronic problematic experiences like abuse, ridicule, shame, and invalidation while growing up in a familial context would seriously disrupt this aspect of the sense of self and would consequently make it a persistent psychological concern (Briere, 2002; Lansky, 1991;
Masterson, 1980; Mokros, 1995; Scheff, 1995).

**Family Dysfunction and Interpersonal Dependence**

For young adults, there is greater physical and psychological movement away from the family. While the immediate daily familial dynamics may be less salient, the patterns and consequences of the familial history appear to remain developmentally significant. Problematic family environments have been consistently implicated in consequent social and psychological deficits and difficulties in children, adolescents, and more recently, young adults. Although there is a plethora of research on these problematic familial patterns the majority of it focusses on adolescents and children. Generally this research has revealed that problematic family relationships have detrimental effects on self esteem, competence, and interpersonal abilities and lead to a variety of maladaptive coping behaviours including suicide. The patterns of problematic familial relating are characterized by relationships that are distinctively less cohesive, involving, and supportive, and are more conflictual, aversive, and controlling (Adams, Overholser & Spirito, 1994; Kaslow, Deering & Racusin, 1994; Kienhorst, de Wild, Diekstra & Wolters, 1992, 1993; Lewinson, Roberts, Seeley, Rohde, Gotlib & Hops, 1994a; Lewinson, Rohde & Seeley, 1994b; Reitman & Gross, 1995).

A review of specific research on adolescent suicide indicates that, when depression is statistically controlled, problematic family relationships becomes a significant predictor in a variety of maladaptive coping and self destructive behaviours, including suicide (Brent, Perper, Moritz, et al., 1994a; Lewinsohn, Rohde & Seeley, 1994b; Williams & Lyons, 1976). The adolescent research also reveals that problematic family environments often have detrimental effects on the interpersonal abilities and esteem of adolescents. There is a tendency for adolescents to have a limited repertoire for solving conflict, to possess ineffective communication and problem solving skills, and to experience greater enmeshment and disengagement with others, in addition to having poorer social support, a depressed cognitive style, and higher prevalence of
depression (Adams, Overholser & Lehnert, 1994; Newman & Murray, 1983; Sadowski & Kelly, 1993; Spirito, Hart, Overholser & Haverson, 1990). Developmentally, these kinds of relationships exist on a temporal continuum and have been found for pre-adolescents as well (Crocker & Hakim-Larson, 1997; Grych, Jouriles, Swank, McDonald & Norwood, 2000) and clinically for adults (Kelly, 2000; Lansky, 1991; Lopez, 1992; Masterson, 1980). Although this research predominantly focuses on adolescents, by extension it is suggestive of similar kinds of consequences for young adults. There is some relatively recent research, particularly in terms of problems with romantic relationships, that supports this theoretical extension. For instance, a history of family problems appears to be significantly related to young adult depression, romantic relationship problems, and suicidal behaviour (Goldney, 1981; Kot & Shoemaker, 1999; Oosterhoff, 1998; Rudd, 1989, 1990). In fact, Wallerstein, Lewis and Blakeslee (2000), Wallerstein (1989), and Wallerstein and Kelly’s (1980) longitudinal research investigating divorce, one aspect of family difficulty, found that the greatest impact of divorce and antecedent conflict occurred in the young adult years, particularly during the attempts to establish long term romantic relationships. Similarly, Andrews, Foster, Capaldi and Hops (2000) found that family conflict, depression, and antisocial behaviour of adolescents are prospectively and negatively related to young adult satisfaction in romantic couples.

Concerning romantic relationship problems, it may be with the coincidence of greater interpersonal dependence and limited self diversity, that the effects of problematic family history are keenly apparent for young adults. The self system develops in a social context which, initially and primarily is the family (Bowlby, 1980; Lopez, 1992; Saarni, 1999; Sroufe, 1995). An individual’s family of origin represents the crucible where the patterns of intimate relating are formed. Given the consequence of familial difficulties observed with adolescents and young adults, the relational dimension of the self system would probably be impoverished in that there would be strong unmet relational needs for affection and validation. There may also be a related tendency toward negative self evaluation relationally via affects like poor self-esteem, shame, or guilt which will be discussed at length in the following section. The absence of
adequately satisfied relational needs may result in young adults feeling psychologically needy thereby engendering an interpersonal dependency that is focussed on satisfying those needs. This interpersonal dependency involves the powerful desire for unequivocal positive emotional attachment, intense fears concerning the loss of that attachment, and devastating consequences perceived to be associated with such a loss (Hatfield & Rapson, 1999). Hatfield and Rapson (1999) argue from their research review on attachment and the antecedents of love, that damaged self esteem, dependence, insecurity, and neediness tend to make people “hunger” for love in their relationships. Arnett (2000b) found in his research that the tendency to see romantic relationships as the ultimate source of happiness was higher for young adults whose family experience involved divorce or frequent conflict. Finally, the research of Dion and Dion (1988) found that young adult undergraduates with low self esteem tended to rate their romantic relationships as being more intense experiences, they expressed greater attitudes of love and trust for their partners, and they rated their partners more favourably, all possibly because of greater relational needs.

In addition, given this focus on satisfying unmet relational needs via interpersonal dependence, young adults may concomitantly limit their self diversity by focussing the majority of their hopes for fulfilment of these unmet needs on their romantic relationships, making heavy investments in them, and limiting other areas of development. This focus may be bolstered by sociocultural influences concerning romantic relationships discussed in the preceding sections. As the above reviewed research indicates, self diversity is important because having multiple valued and successful self dimensions mitigates the failure in a single area with success in other areas (Cohen, Pane & Smith 1997; Dixon & Baumeister, 1991; Linville, 1985; Morgan & Janoff-Bulman, 1994; Niedenthal, Setterland & Wherry, 1992; Pelham, 1991, Pelham & Swann; 1989). Theoretically, this narrowing pattern stands in contrast to those young adults whose families were adequately responsive to their developmental requirements, who do not have an inordinate dependence on others for love, and who have cultivated other sources of self fulfilment and validation (i.e., achievement or success in other areas and relationships). In sum, the heavy dependence on
romantic relationships to satisfy relational needs, while letting other sources lapse is risky. It creates a psychological vulnerability via the loss of the ameliorative effects of a diversity of self dimensions, and it places heavy psychological demands on the romantic relationship itself.

It is important to note that a problematic family history does not categorically determine the above consequences. The presence of many protective factors can mitigate the potential vulnerabilities that tend to be a consequence of a problematic family history (Anthony & Cohler, 1987; Rutter, 1987). There are young adults who experience problematic family histories and yet do not encounter romantic relational problems that engender self-destructive behaviour like suicide. As individuals grow and develop, they encounter increasingly larger numbers of other people who potentially provide a degree of nurturance. These positive experiences may ameliorate some of the familial damage, thereby reducing the risk of maladaptive coping. Yet the consequences of family dysfunction and the romantic focus raise the question as to the consequences for young adults who have difficulty securing important romantic relationships. Obviously, the process of negotiating romantic relationships is challenging, and many early relationships in young adulthood normally encounter problems and do not survive. It has been observed in literature and research that the failure to acquire or sustain love and its promise of fulfilment is an extraordinarily painful psychological experience (Hatfield, 1988; Hatfield & Rapson, 1999; Shaver, Hazan & Bradshaw, 1988). While there are many emotional reactions to relational difficulties, a significant painful reaction, particularly in terms of an impetus of more self-destructive behaviours like suicide, may be the experience of shame. This will be examined and developed in the following sections regarding young adult suicide and shame.

**Incidence of Parasuicidal Behaviour and Depression in Young Adults**

Demographically, completed suicide rates among young adults represents one of the highest rates across age groups. In the middle 1960's the suicide rate for young adults in Canada increased dramatically
and reached a plateau that has remained relatively stable over the last thirty years. In Canada completed suicide is the second to third leading cause of death for young people between the ages of 15 and 24 (Weir & Wallington, 2001; Canadian Association for Suicide Prevention, 1994). The number of suicides by young North American adults consistently ranges from approximately 15 to 25 five per 100,000, which is relatively high compared to the national averages in other countries (Klerman 1987; Leenaars & Lester 1994; McIntosh & Jewell, 1986; Sainofsky & Leenaars, 1997; Slimack, 1990). The most recent Canadian census data from Statistics Canada indicates that in 1997 the national average across all ages was 12.3 per one hundred thousand (Statistics Canada, 2001). Young adults between the ages 18 to 24, which straddle two census categories of 15-19 and 20-24, had averages of 12.9 and 14.5 per one hundred thousand respectively. The difference in rates between women and men continues to be clearly evident with the national average for men at 19.6 and women at 5.1 per one hundred thousand. For the 15 to 19 age group the rates of suicide were 19.9 for men and 5.5 for women per one hundred thousand, and for the 20-24 age group the rates were 24.9 for men and 3.6 for women per one hundred thousand. In sum, completed suicide for young adults and adolescents across North America and Europe consistently ranks as the fifth leading cause of death for these two age groups (Diekstra & Gulbinat, 1993).

Suicidal ideation and attempts (i.e., parasuicidal behaviour) also occur with high frequency. The incidence of suicidal ideation and attempts across North America and Europe has been recently estimated to be 10 to 20 times higher than that of completed suicide (Diekstra & Gulbinat, 1993). In Canada, suicidal ideation and attempts have been found to occur with approximately 300 to 700 per 100,000 per year (Sainofsky & Leenaars, 1997; Sainofsky, 1998). In the United States, while approximately 30,000 individuals commit suicide each year, approximately 500,000 individuals are treated in emergency departments for suicide attempts annually (Wright, 2001). With these statistics there is a significant problem of under-reporting. This problem is due in part to variation in reporting criteria (e.g., what constitutes a suicide, ideation, attempt), absence of official statistical collection, and intentional and
unintentional misclassification. As a result there is an increased probability of underestimating the rate of the range of suicidal behaviour (Diekstra & Gulbinat, 1993; Lester, 1992; Ruth, 1993; Rudd, 1989; van de Voorde, Hooft & Mulkers, 1993). The issue of under-reporting is not confined to the twentieth century, but has a centuries long sociopolitical history in Western culture (see Minois, 1999).

Consistent with the trends in the national statistics cited, there are numerous research studies that indicate high rates of ideation and attempts for young adults. Approximately between 25 and 50 percent of large samples of university students have been found to engage in some form of parasuicidal behaviour in the previous year (e.g., ranging from suicidal thoughts to plans and attempts) (Hawton, Haigh, Simkin, and Fagg, 1995a; Lester, 1990; Meehan, Lamb, Saltzman, & Carroll, 1992; Oosterhoff, 1998; Rudd, 1989; Wellman & Wellman, 1988). Between approximately 15 and 30 percent seriously considered suicide or acted upon these considerations (e.g., came close to making an attempt or told someone they wanted to kill themselves). Finally, between approximately three and five percent attempted suicide. Suicidal ideation and attempts are very serious behaviours because they involve a significant degree of distress and are associated with an increased risk of injury and completion (Comtois, 2002; Shneidman, 1985, 1994). It is also well documented in the research literature that depression is highly positively associated with, and is a strong predictor of, suicidal and parasuicidal behaviour across populations and age groups (Coyne, 1985; Lester, 1992). At minimum, approximately half of all suicides are completed by individuals with a form of depressive disorder (Clark & Goebel-Fabbri, 1999; Petronis, Samuels, Mosciki & Anthony, 1990; Riskind, Long, Williams & White, 2000). These findings for depression follow for young adults (Abramson, Alloy & Hogan 1998; Davila & Daley, 2000; Merikangas, Wicki & Angst, 1994). These statistics reveal that depression and suicidal behaviours are prevalent and this is indicative of the serious problems that a relatively large number of young adults face. Arguably, based on the numbers, suffering, and social loss, suicidal behaviour among young people represents a significant public health problem (Diekstra & Gulbinat, 1993; Diekstra, 1996; Weir & Waddington, 2001).
Theories of Suicide and Shame

There are numerous theories of suicide that range from the sociological (e.g., Durkheim 1897/1951; Scheff, 1990, 1995; Stack, 1978), and the biological (e.g., Roy, 1994; Slaby & Dumont, 1992; Stoff & Mann, 1997) to the psychological (e.g., Baumeister, 1990; Beck 1990; Higgins, 1987; Shneidman, 1985), all which have varying degrees of integration inter-theoretically. There are at least four major psychological theories of suicide in currency in clinical research at present (see Cornette, Abramson & Bardone, 2000 for a review) although there are several others historically (see Leenaars, 1988; Lester, 1994; Maltsberger & Goldblat, 1996; Minois, 1999; Shneidman, 2001). These four theories are not necessarily mutually exclusive and their development over time has spawned considerable conceptual overlap despite their evolutionary variants. In brief, the first theory is the psychache or unbearable psychological pain theory by Shneidman (1985, 1993, 1999). Shneidman (1985, 1993) argues that the unbearable psychological pain resulting from negative life events is the impetus for suicide. The second is the hopelessness theory by Beck (1975, 1985, 1990; Abramson, 1989; Rudd, 2000). This cognitive-behavioural view is that hopelessness and depression, caused by negative events and depressogenic inferences about those events, lead to suicidal behaviour. The third is the self discrepancy theory by Higgins (1987). In this theory suicide comes about because of a large and cognitively accessible discrepancy between an ideal self and the actual self that falls below the ideal, thereby leading to negative affect. Finally, the fourth is the self escape theory by Baumeister (1990; Vohs & Baumeister, 2000), who argues that suicide results from the motivation to escape aversive self awareness and affect that result from negative internal attributions about the self.

While these four broad theories are all eminently useful in explaining how suicide can occur, an area that requires more attention concerns the nature and impetus of the negative affect. Only recently has there been increasing exploration of other negative emotions, beyond primarily depression and hopelessness, that could be connected to suicide (Hastings, Northman & Tangney, 2000). This connection
can be illustrated by several questions in relation to the above theories: What is it about psychological pain that makes it unbearable? Alternatively, what is it about an individual’s experience that is so difficult so as to spawn hopelessness? What is it in an individual’s experience of self awareness that makes him or her want to escape it? Finally, what is it about the discrepancy that stimulates suicidal behaviour? It should be acknowledged that the above theorists have attempted to answer these questions with varying degrees of explicitness, but a potentially important affective factor in the psychology of suicide is the experience of shame. This is not to argue that all suicides have to do with shame, but that for young adults the issue of romantic relationships is of central developmental importance, and shame could be a common experience when significant failure is encountered and suicide is considered.

The experience of shame may be a specific and poignant aspect of the emotional pain experience associated with suicide (Kral & Johnson, 1996; Fischer & Tangney, 1995; Lansky, 1991; Shreve & Kunkel, 1991). While the connection between suicide and shame has been made by historically prominent and contemporary writers (e.g., Durkheim, 1897/1951; Freud, 1915/1966; Lansky, 1991; Lazarus, 1991; Lewis, 1992; Shreve & Kunkel, 1991), it has only been cursorily developed theoretically or empirically. In fact, Hastings, Northman and Tangney (2000), in a recent review on the relation of shame and guilt to suicidal behaviour, suggest this is an area that has only been “little more than a footnote in the vast literature on suicide” (p.69). Similar reviews by suicidologists and other researchers concur (e.g., Lester 1997; Reimer, 1996). This relative absence in the research literature underscores the issues of reductionism and stagnation in suicidological theories noted recently by Baumeister (1995), Lester, (2002), and Shreve and Kunkel (1991). Contributing to this situation may be the fact that the experience of shame may be occluded by other affects experientially (e.g., Lansky, 1991). With respect to suicidal behaviour, one of the most consistently powerfully correlated affects is depression (Abramson, Alloy & Hogan 1998; Clark & Goebel-Fabbri, 1999; Coyne, 1985; Davila & Daley, 2000; Lester, 1992; Riskind, Long, Williams & White, 2000). Depression is generally viewed as a syndrome with several characteristic “objective”
symptoms (e.g., American Psychiatric Association DSM-IV, 1994; Lazarus, 1991; Scott & Ingram, 1998) that have various biological, psychological, and sociological explanatory theories (see Coyne, 1985; Rehm & Tyndall, 1993; Rehm & Mehta, 1994 for extensive reviews). As a syndrome, depression is not viewed as a distinct emotion because it represents a state that includes a complex of several affective experiences (Coyne, 1985; Lazarus, 1991). In consequence, there is a degree of overlap of symptoms of depression with the conceptions of other potentially negative emotions like shame, guilt, anger, or sadness (Hastings, Northman & Tangney, 2000). This overlap is facilitated by the use of similar symptom descriptors (e.g., worthlessness, isolation, humiliation, low self esteem. See Becker, 1985; Brown & Moran, 1998; Hastings, Northman & Tangney, 2000; Kovacs & Beck, 1985; Lazarus, 1991; Rehm, 1985; Tantam, 1998), eliciting events (e.g., interpersonal or social events like loss. See Billings & Moos, 1985; Coyne, 1985; Lazarus, 1991), and risk factors (e.g., gender, social status, relational status. See Brown, 1985; Radloff, 1985). Although depression is important it is of significant conceptual value to direct investigative interest toward understanding other distinct affects that elucidate aspects of the impetus toward suicidal behaviour.

What is shame like phenomenologically, and how is it different from other negative emotions? A precise technical definition of shame is inherently challenging because the lexicon for emotions are some of the most malleable in the English language and consequently subjected to extensive metaphorical treatment (Averill, 1994; Berry, Poortinga, Segall & Dassen, 1992; Lazarus, 1991; Morawski, 1997; Tomkins, 1995). Shame is an affective experience that is intrinsically connected to the experience of the self in social relationships (Gilbert, 1998; Mokros, 1995; Tangney, 1995; Tomkins, 1995), and can be adaptive as an ethical guide at moderate levels of intensity (Lindsay-Hartz, De Rivera & Mascolo, 1995). Shame overlaps with other related negative emotions, particularly guilt, but it is relatively distinct theoretically in several ways. Shame has three cardinal characteristics. First, it is associated with the failure of achieving personal or sociocultural standards (e.g., hope, fantasy, goal) that one feels responsible for, because of an intrinsic inadequacy of the whole self (Demos, 1988; Freud, 1930/1961; Lazarus, 1991; Lewis 1992;). Second,
there is a perceived sense of, or actual, public exposure of the failure (Kral & Johnson, 1996; Lewis, 1992). Third, there is a fear of rejection or abandonment because of the intrinsically generated failure (Fischer & Tangney, 1995; Greenberg & Paivio, 1997; Lansky, 1991; Lazarus, 1991; Lewis, 1971, 1992, 1993; Tomkins, 1995). Lazarus (1991) argued that this fear is unique to shame and is not experienced in any of the other primary emotions like guilt, anger, envy, or fright.

The emotional process of shame involves self-denigration and self-blame that includes a range of intense affective experiences like humiliation, disgrace, disgust, self-loathing, contempt, worthlessness, and inferiority (Demos, 1988; Greenberg & Paivio, 1997; Harder & Zalma, 1990; Kral & Johnson, 1996; Lazarus, 1991; Lewis, 1992). The intensity of the shame experience is connected to the relative significance of the failure to the individual (e.g., romantic relationship failure for young adults). Lindsay-Hartz, De Rivera & Mascolo (1995), in their phenomenological research distinguishing shame from guilt, found that with the experience of shame the self was experienced as horrible, ugly, and essentially "embodies an anti-ideal" (p. 289). In contrast, guilt was associated with the violation of sociomoral rules (Lazarus, 1991; Lindsay-Hartz, De Rivera & Mascolo, 1995). Tied more to specific acts, the self experience in guilt is that one does bad things, and the emotional experience is more of a fear of punishment (Demos, 1988). Shame is a self conscious evaluative emotion that by its very nature is aversive since it reflects a negative evaluation that is directed at the self (Lewis, 1993; Saarni, 1999). Shame forces attention on the self that has failed and is loathed. This experience naturally stimulates a reaction to cope with or escape from the failure (Fischer & Tangney, 1995; Lazarus, 1991; Lindsay-Hartz, De Rivera & Mascolo, 1995). The psychological difficulty with shame, unlike guilt, is that there is no easy way to escape the feeling through social acts of atonement or penance (Osherson & Krugman, 1990; Osherson, 1992). This difficulty is due in part to the generalizing quality of the emotion. Although the impetus for shame may be discrete, the experience of it extends to the entire self, such that the self is the problem, making any specific ameliorative attempts relatively futile (Hastings, Northman & Tangney, 2000). Given
this difficulty, among the variety of coping strategies employed to deal with shame, suicidal behaviour may be seen as an effective way to cope (i.e., escape from) with the pain associated with self-shame.

Hastings, Northman and Tangney (2000), Lester (1997), and Reimer (1996) noted that there are very few empirical studies that examine the relationship between shame and suicide. Much of the research is indirect, demonstrating an association of shame with other psychological dimensions like depression, anxiety, or interpersonal difficulties that are also known to be related to suicidal behaviour (Tangney, 1991; Tangney, Wagner & Gramzow, 1992; Harder, Cutler, & Rockhard, 1992). Despite the prevalence of indirect studies, there is some emerging research concerning the shame and suicide connection although much of it is not directly concerned with young adults. Beginning with more general research, Hassan (1995, 1980) has examined suicide in Singaporean and Australian cultures from a sociological and historical perspective. While he found that the identification of causes of suicide is complex, he did find that shame and guilt played a role in suicide across age groups and gender. However, there is conceptual confound in Hassan’s research, because while he included external categories like failure in life, physical/mental illness, or unhappy love, he also included the emotional experience of shame or guilt as a category that was independent of any impetus. It is unclear in Hassan’s research where the experience of shame or guilt itself comes from, and it could be related to the other external categories like failure in life or unhappy love.

In terms of adolescents, Mokros (1995) examined the role of shame in suicide through an interpretive analysis of a small number of adolescent suicide notes. From his analysis he found that there was evidence of a feeling of deep humiliation from some failure, a difficulty in facing this feeling, and a lack of external and internal support to turn to. Mokros (1995) continued to suggest that an important part of the failure appeared to be a struggle with a sense of place for the self relationally with others. Finally Mokros (1995) also observed other qualities in the suicide notes (e.g., psychological availability of suicide as a meaningful way of escape from painful self experiences, availability of means and models) that have
been discussed in the suicidological literature (e.g., Baumeister, 1990; Kral, 1994). These conclusions share some consistency with Shreve and Kunkel’s (1991) self psychological perspective on suicide, shame, and adolescents. These authors argued that adolescents who are vulnerable via familial neglect or abuse, might find the loss of intimate others particularly intolerable and shameful, and that suicide may represent an extreme example of coping with that pain and threat to the self. Finally a similar relationship between suicide and self esteem, a related concept inverse to shame and guilt, has been well demonstrated in the research literature. For example, Vella, Persic and Lester (1996) and Overholser (1995) have found that when depression was controlled, lower self esteem was associated with suicidal behaviour in young adults and adolescents.

Concerning young adults with regard to the relationship between shame and suicide there are only two recent empirical studies. In research on undergraduates, Hastings, Northman and Tangney (2000) found that suicidal ideation and depression was significantly associated with the tendency to experience shame across a variety of situations (i.e., a shame proneness). Moreover, guilt was found to be unrelated to suicidal ideation and only slightly related to depression. In related research on young adults, Tangney (1992) found that failure and emotionally hurting someone were strong situational determinants for shame over guilt. Finally, Lester (1998) evaluated young adult undergraduates with regard to the association of shame proneness and suicidality. He found that shame was significantly correlated with suicidal behaviour (i.e., current suicidality, past ideation and threats, but not attempts) whereas guilt was not. Interestingly, he also reported that the association between shame and current suicidality was found more for men than for women. In sum, these pieces of research suggest that shame appears to play an important role in the suicidal behaviour of young adults. Returning to the developmental theme that began this discussion, an issue that remains to be examined in these preliminary studies is what specifically about young adult experience may be the impetus for shame and suicidal behaviour. In line with this conceptual return to development, Retimer (1996) suggested that an area requiring more research concerns whether problems in
developmentally relevant domains of the self, like romantic problems for young adults suggested by this present author, activate an experience of shame for some individuals.

CONCEPTUAL REVIEW, INVESTIGATIVE RATIONALE, AND HYPOTHESES

Within the spectrum of human behaviour, suicide represents one of the most psychologically perplexing acts. Like any complex human behaviour, suicide is influenced by multiple, intertwined factors. To understand this complexity the suicidal behaviour of young adults was examined in its social, developmental, and psychological contexts which enabled the consideration of the multiple influences involved as well as their interplay (e.g., King, 1998). The purpose of this study was to build on previous research and develop a broader theoretical conception of the specific psychological processes of parasuicidal behaviour in young adults. The introduction endeavoured to review and integrate some of the important influences that highlight the psychological processes that are associated with the suicidal behaviour of young adults. These interconnected influences included the problematic romantic relationships; family dysfunction, interpersonal dependence, and a lack of self diversity; and the experience of shame and depression. Much of the previous research reviewed, particularly concerning young adult’s family dysfunction, shame, and parasuicide, is correlational and recent. Therefore the conceptual framework developed does not constitute a mature research area because the theoretical interconnections among the variables have not been extensively explored or replicated (Kenny, 1998). The next logical step methodologically was to explore the possible predictive relationship of parasuicide with the other variables and isolating important mediational relationships that may be apparent (Kenny, 1998; Kazdin, 1992; Newby-Clark, 2002, personal communication; Kwantes, 2002, personal communication). Since much of the previous research reviewed was correlational there were several expectations that derived from this literature apart from the expectations concerning the regression analysis. These correlational expectations are reviewed below and then followed by a review of the expectations concerning the regression and
mediational analyses. The sub-hypotheses are listed below in italics and are also numbered sequentially across these analyses.

**Hypotheses Regarding Shame, Depression and Parasuicide**

Concerning the developmental context of young adults, romantic relationships, and shame, investigative interest focussed on the connection between shame, depression, and parasuicide, as well their contribution toward the prediction of parasuical behaviour in young adults. An important but neglected aspect of the pain or perturbation (e.g., Shniedman, 1985) in suicide appears to be the experience of shame (Hastings, Northman & Tangney, 2000; Lester, 1997; Reimer, 1996). Shame is a deeply painful and aversive affect that involves intense self-loathing over a flaw within the self and it impels behaviour to hide or escape to cope (Lewis, 1992; Lazarus, 1991; Tangney, 1995). Attempts at coping are difficult because the self-flaw is experienced as intrinsic and global and there are no socially or psychologically expedient ways to ameliorate shame (Hastings, Northman & Tangney, 2000; Osherson, 1992). With limited escape routes, suicidal behaviour may become a considered option to cope effectively with shame and the precipitating circumstances. Specifically, in terms of shame and parasuicide, *(1) it was expected that greater parasuicidality (i.e., higher scores) would be positively related to a greater experience of shame (i.e., higher scores).* Lester’s (1998) findings indicated that the association between suicide and shame may be found more prominently for men than for women and more for ideation than attempt. These findings will be compared to the results of this research. Although depression is a prominent variable in suicide, theoretically shame may more accurately specify the proximal psychological distress in, and impetus toward, suicidal behaviour (Hastings, Northman & Tangney, 2000; Lester 1998). Therefore, *(2) it was expected that the correlation between parasuicidal behaviour and shame comparatively would be significantly greater than the correlation between parasuicidal behaviour and depression.*
Hypotheses Regarding Romantic Relationship Problems

Regarding romantic relationship problems investigative interest focussed on the connection between romantic relationship problems and shame, interpersonal dependence, and self diversity, as well as the contribution of these variables toward the parasuicidality of young adults. It was evident from theory and research that a developmentally important issue for young adults is romantic relationships (Arnett, 2000a; Erikson, 1968, 1963; Hatfield & Rapson, 1999; Paul & White, 1990; Roscoe, Diana & Brooks, 1987; Roscoe, Kennedy & Pope 1987). Retimer (1996) suggested that an area requiring more research concerns whether problems in developmentally relevant domains of the self activate an experience of shame for some individuals. If romantic problems are experienced as a significant failure because of some intrinsic flaw, the individual’s self could be painfully experienced as undesirable and shameful (Baumeister, 1990, 1991; Lewis, 1992; Lazarus, 1991; Mokros, 1995; Retimer, 1996; Shreve & Kunkel, 1991; Tangney, 1995). The absence of adequately satisfied relational needs through development may engender a psychological neediness relationally. The satisfaction of that need may become a predominating concern in the form of interpersonal dependence (Arnett, 2000b; Hatfield & Rapson, 1999; Dion & Dion, 1988). This concern would likely be particularly poignant during young adulthood as intimate relationships change and shift from family to romantic interest in peers. This concern could engender an exclusive focus on romantic relationships over other areas of self development to satisfy unmet relational needs and thereby making individuals more psychologically vulnerable with setback or failure in this area (Campbell, Assanand & Di Paula, 2000; Pelham, 1991; Smith & Cohen, 1993; Wallerstein, Lewis & Blakeslee, 2000; Wallerstein, 1989). Therefore in terms of relationship difficulties, (3) it was hypothesized that, for young adults, poorer relationships (i.e., lower scores) would be negatively related to a greater experience of shame (i.e., higher scores) and interpersonal dependence (i.e., higher scores), and positively related with lower self diversity (i.e., lower scores). Relationship problems do figure prominently in the depression and suicidal behaviour of young adults (Hawton, Haigh, Simkin & Fagg, 1995a; Oosterhoff, 1998). Therefore,
(4) since it has been previously found that parasuicidal behaviour was positively related to greater depression (i.e., higher scores) and negatively with poorer romantic relationships (i.e., lower scores), it was expected that these findings would be replicated.

Hypotheses Regarding Family Dysfunction

Concerning family dysfunction, another investigative interest was concerned with the interconnections between it and interpersonal dependence, low self diversity, and problematic romantic relationships, as well as the predictive contribution of family dysfunction toward young adult parasuicidal behaviour. Family relationships are the crucible for relational development, and the familial patterns and consequences continue to influence development beyond childhood (Bowlby, 1980; Masterson, 1980; Saarni, 1999; Sroufe, 1995). Problematic family relationships are consistently associated with a range of detrimental consequences (Adams, Overholser & Lehnert, 1994; Brent, Perper, Moritz, Liotus, Schweers, Balach & Roth, 1994; Lewinsohn, Rohde & Seeley, 1994b; Sadowski & Kelly, 1993). The absence of adequately satisfied relational needs in the family may engender a psychological neediness relationally in the form of interpersonal dependence (Arnett, 2000b; Hatfield & Rapson, 1999; Dion & Dion, 1988). Family dysfunction may also contribute, along with this neediness, to limit self development, particularly relationally, resulting in a lower self diversity (Arnett, 2000b; Hatfield & Rapson, 1999; Wallerstein, Lewis & Blakeslee, 2000; Wallerstein, 1989). In regard to these two variables, (5) it was hypothesized that greater family difficulties (i.e., higher scores) would be positively related to higher interpersonal dependence (i.e., higher scores) and negatively related to lower self diversity (i.e., lower scores) in young adults. Finally, for young adults a history of family problems appeared to be significantly related to young adult depression, romantic relationship problems, and parasuicidal behaviour (Oosterhoff, 1998 and others). Therefore (6) since it has been previously found that greater family dysfunction (i.e., higher scores) was positively correlated with depression (i.e., higher scores) and parasuicide (higher scores),
and was negatively correlated with poorer relationships (i.e., lower scores), it was expected that these findings would be replicated.

Hypothesis Regarding the Regression and Mediation Analyses for the Variables

Following from the conceptual interrelationship of the variables with suicidal behaviour the final investigative interest was focussed on the contribution of the above variables to the prediction of the parasuicidal behaviour of young adults. Following from past investigation (Oosterhoff, 1998) that demonstrated problematic romantic and family relationships and depression were related to parasuicidal behaviour in young adults, it was argued that three additional conceptually related variables, shame, self diversity, and interpersonal dependence are also important, but have only been evaluated in terms of young adult suicide in limited ways. Given that these variables theoretically contribute to the impetus toward suicidal behaviour their predictive contribution was investigated. Therefore it was expected that (7) the experience of shame, relationship difficulties, family dysfunction, interpersonal dependence, low self diversity, and depression would contribute to the prediction of young adult parasuicidal behaviour.

Since depression is a broad and general concept of distress whose symptom topography overlaps with many other forms of distress it has the potential to occlude (e.g., acting as a mediator, Kenny, 2001) other psychologically important forms of distress (Lansky, 1991). Given the predictive strength of depression (Davila & Daley, 2000; Lester, 1992) and this occlusion potential (Lansky, 1991), mediational analyses examining the influence of depression were completed to clarify the predictive role of shame and the other variables.
CHAPTER II

METHODOLOGY

PARTICIPANTS

The participants for this study were young adults ranging in age from 18-25. A total of 327 participants, with a mean age of 21 years, were recruited via a departmental subject pool from the undergraduate population from first through fourth year. Course credit was provided as a small incentive to participate. A relatively large sample of participants was gathered for two reasons. One reason was to obtain a representative view of the parasuicidal behaviour since it occurs with relative infrequency in small samples (see Joiner & Rudd, 2000; Sakinofsky, 1998). The second reason was for the statistical analyses (i.e., regression with 5 to 7 predictors; Green, 1991; Tabachnick & Fidell 1996) and to mitigate for the fact that the distribution of suicidal ideation and attempt is naturally expected to be positively skewed (Oosterhoff, 1998).

MEASURES

Seven instruments were used to measure the variables of depression, parasuicidal behaviour, family functioning, romantic intimacy, shame, guilt, self diversity, and interpersonal dependence. In this research the measure of parasuicidal behaviour served primarily as the dependent measure, while the other variables served as independent measures. Each measure employed in this study was selected for theoretical, psychometric, and practical reasons. The measures were utilized because they are recognized, psychometrically sound instruments that were developed through a combination of theoretical, empirical, and statistical investigation (Kazdin, 1992; Rust & Golombok, 1995). Importantly, a number of the measures had a particular focus on young adults or were primarily validated on them, which adds to their
appropriateness since young adults were the target population in this study. Additionally, concerning the potential problem of item overlap, particularly between the measures of depression, shame, guilt, and parasuicide, all the instruments utilized in this research were chosen because they had no direct face valid item overlap across the instruments. Finally given the number of variables under investigation and the target population, each measure was also chosen because it was linguistically accessible and relatively brief. An analysis of reliability of these measures was completed following their use in this study. In addition to these measures, general demographic data was also acquired (e.g. age, gender, ethnicity). To mitigate potential order effects in the presentation of the instruments, the order of the measures in the questionnaire package was reversed in two alternate forms (Kazdin, 1992; Shaughnessy & Zechmeister, 1994). The effectiveness of this method was evaluated.

**Suicide: Harkavy Asnis Suicide Survey**

Suicide ideation and attempts were measured by the Harkavy Asnis Suicide Survey (HASS) (Friedman & Asnis, 1989). This three-part instrument is designed to gather information about the range of suicidal ideation and attempt. The third part of the HASS was not used in this study since it is primarily a demographic data gathering device. This instrument was employed because, in contrast to suicide risk assessment measures (see Eyman & Eyman, 1992 for review), the HASS is designed to access the broad range and degree of suicidal behaviors in the general population. The first and second parts consist of 20 identical questions assessing the frequency of a range of suicidal ideation, behavior, and motivation within the past two weeks and the lifetime of an individual. The instructions were modified slightly for the second part to focus on young adults by restricting the lifetime range to between age eighteen and twenty-five. In addition three separate questions from the third part of the HASS were incorporated into the questionnaire at the end and analysed separately for demographic purposes. The first two concerned the need for medical attention and the intention to die to assess the severity of attempt. The third concerned an individual’s
reasons for thinking about or attempting suicide was added to the end of the two parts. This question consisted of five alternative reasons with instructions to rank them from most to least serious if more than one reason applied.

In term of reliability, the first and second part of the HASS demonstrates high internal consistency ($\alpha = \text{range .91-.93}$) for clinical and non-clinical samples. In terms of validity, consistent with research on the relationships between suicidal behaviour and various psychological factors, the HASS is moderately positively related to measures of depression, negative life stress, impulsiveness, and aggression, but not with social desirability and positive life stress. To reiterate these two parts of the HASS contained no face valid items that overlapped with the measures of depression or shame and guilt. With respect to construct validity, factor analyses demonstrated a three factor structure accounting for over 65% of the variance. The factors are thoughts about death, passive suicidal behavior (e.g., thoughts, ideas), and active suicidal behavior (e.g., plans, aborted attempts, attempts).

**Depression: Center for Epidemiological Studies - Depressed Mood Scale**

Depression was measured by the Center for Epidemiological Studies - Depressed Mood Scale (CES-D) (Corcoran & Fisher, 2000; Radloff, 1977). The CES-D is a 20 item self-report scale which is designed to measure the current level of depressive symptomatology (particularly depressed mood) in the general population in the previous two weeks. This measure was employed because it is recognized as a well researched and psychometrically sound instrument used to measure a broad range of depressive symptoms in the general population (Coyne, 1985; Radloff, 1985; Rehm & Tyndall, 1993). Psychometrically the CES-D is a reliable and valid instrument. In terms of reliability, the CES-D demonstrates adequate internal consistency ($\alpha = .85$ for the general population; Split-half/Spearman-Brown .77-.92) and acceptable temporal stability (test retest correlations .67 over two to eight weeks). Norms are provided for both the general population and clinical population. In terms of validity, the CES-D
has been shown to have excellent concurrent validity and correlates significantly with other depression scales (i.e., Beck Depression Inventory, SCL-90) (Corcoran & Fisher, 2000; Radloff, 1977). Also the CES-D has been shown to discriminate between the general population and patient groups in terms of severity of depression (Corcoran & Fisher, 2000; Radloff, 1977). Finally, to reiterate the CES-D contained no face valid items that overlapped with the measures of parasuicide or shame and guilt.

**Romantic Relationships: Miller Social Intimacy Scale**

Romantic intimacy was measured by the Miller Social Intimacy Scale (SIS) (Corcoran & Fisher, 2000; Miller & Lefcourt, 1982). The SIS is a 17 item scale that is designed to measure the intimacy in romantic and friendship relationships. This scale was employed because it is a barometer of relationship difficulties in that it consists of items that access both frequency and intensity of intimate behavior (e.g., communication, trust, connection, disclosure etc). The norms were developed with, and provided for, young adult romantic, non-romantic, male, female, clinic, and non-clinic samples. This provides a normative range of intimacy levels for these populations including those with relational problems. The instructions were modified slightly to focus on a current romantic relationship or the most recent past relationship after the age of 18 if not in a current relationship to avoid tapping previous adolescent relationships.

Psychometrically the SIS demonstrates high reliability and decent validity. The instrument has excellent internal consistency (α = .86 - .91) and has a test-retest correlation of .84-.96 over a two month period indicating good stability over time. The SIS also demonstrates appropriate construct validity in that it has been found to predictably correlate with other relational measures and not with measures that have nothing to do with relationship intimacy (e.g., UCLA Loneliness Scale, Interpersonal Relationship Scale, Tennessee Self Concept Scale, Personality Research Form). The authors report, in addition, that the SIS is not strongly affected by a social desirability response set. Finally the SIS had been shown to discriminate between known groups of couples with or without relationship problems seeking therapy, married and
unmarried students, and degrees of intimacy in different types of intimate relationships (Corcoran & Fisher, 2000; Miller & Lefcourt, 1982).

**Family Dysfunction: Family Assessment Device**

Family functioning was measured by the Family Assessment Device (FAD) (Corcoran & Fisher, 2000; Epstein, Lawrence & Bishop, 1983). This measure was employed in this study because it is recognized as a standard, well researched, and psychometrically stable instrument of family functioning (Swain & Harrigan 1995). The FAD is a 60-item instrument which covers seven dimensions of family functioning: general functioning, problem solving, affective responsiveness, affective involvement, communication, roles, and behavioural control. These dimensions tap the problematic areas in families that are consistently identified in previous research. Problem Solving concerns the capacity of the family to resolve problems in ways that maintain effective family functioning and integrity. Affective Responsiveness is concerned with family members' experience of appropriate affect with a range of stimuli and emphasizes welfare. Affective Involvement deals with the degree to which family members are interested in and value other members' concerns and activities. Communication deals with the clarity and directness in the exchange of information among family members. Roles focuses on the established patterns for handling family functions like the provision of nurturance, support and resources and the equitableness and appropriateness of those patterns. Behavioural Control measures the patterns of control in different situations (e.g., social, dangerous) and the way the family maintains and expresses behavioural standards.

In terms of reliability the FAD demonstrates high internal consistency across the whole measure (α = .82; α = .72-.92 across the seven dimensions). The test-retest reliability over a one-week interval was found to be adequate (α = .66-.76 across the dimensions). The FAD has appropriate construct validity and was highly correlated with other family functioning measures (FACES II, FES), indicating good concurrent validity. The FAD also demonstrated decent discriminant validity by significantly distinguishing individuals
from clinically identified problematic families versus non problematic families. The FAD also demonstrated some predictive validity in that the measures of family functioning were related to stroke recovery, major depression recovery, substance abuse, and post-divorce adjustment (Corcoran & Fisher, 2000; Epstein, Lawrence & Bishop, 1983; Swain & Harrigan 1995).

Shame: Harder Personal Feelings Questionnaire-2

Shame was measured by the Harder Personal Feelings Questionnaire-2 (PFQ-2) (Corcoran & Fisher, 2000; Harder & Zalma, 1990; Harder, 1992, 1995). The PFQ-2 is a 16-item instrument that consists of two sub-scales which are designed to measure the degree of an individual’s tendency toward the experience of shame and guilt in general (i.e., shame and guilt proneness, Hastings, Northman & Tangney 2000). This instrument was employed because it is a recognized theoretically and psychometrically sound measure that was developed with young adults (Andrews, 1998). Also, this instrument accesses both shame and guilt together, which is important since these two emotions are not easily distinguishable and are frequently studied in tandem (Gilbert, 1998; Tangney, 1992; Tangney, Burggraf & Wagner, 1995). Psychometrically, the PFQ-2 has decent reliability and validity. The PFQ-2 demonstrates acceptable internal consistency for both sub-scales (shame $\alpha = .78$, guilt $\alpha = .72$) and high test stability (two week test-retest correlations .91 for shame and .85 for guilt) (Corcoran & Fisher, 2000; Harder & Zalma, 1990). The PFQ-2 also reports appropriate construct validity in that the scales have been found to be consistent with several predicted correlations and relationships (e.g., positive, negative, or no correlation) with known measures like the Beck Depression Inventory, Adapted Shame and Guilt Scale, Buss Self Consciousness Scale, Rotter Locus of Control Scale (Corcoran & Fisher, 2000; Harder, 1992, 1995). Additionally, evaluations of the factorial structure found that the instrument items loaded on a two factor solution similar to the factor structure of the Adapted Shame and Guilt Scale (Harder & Zalma, 1990).
Interpersonal Dependence: Interpersonal Dependency Inventory

Interpersonal dependence was measured by the Interpersonal Dependency Inventory (IDI) (Corcoran & Fisher, 2000; Hirschfield. Klerman, Gough, Barrett, Korchin & Chodoff, 1977). The IDI is a 48 item instrument that consists of three independent sub-scales which are designed to measure the feelings, thoughts, and behaviors of emotional dependence, lack of self confidence, and assertion of autonomy. This inventory was employed in this study because it directly accessed interpersonal dependence and the scale was developed in part using non-clinical young adults which is the target population for this study. For the purposes of this study the 18 item sub-scale measuring emotional dependence was used because it most directly assesses interpersonal dependence (Hirschfield. Klerman, Gough, Barrett, Korchin & Chodoff, 1977), while the other two scales do not and were not theoretically pertinent to this study. The emotional dependence scale assesses the degree of desire for attachment and emotional support from others as well as a dread of loss of close others (Hirschfield, Klerman, Gough, Barrett, Korchin & Chodoff, 1977). Psychometrically, the IDI demonstrates decent reliability and validity. In terms of reliability, this sub-scale was found to have high internal consistency with a split half reliability of .87 (Corcoran & Fisher, 2000; Hirschfield. Klerman, Gough, Barrett, Korchin & Chodoff, 1977). In terms of validity, IDI has appropriate concurrent validity in that the first two sub-scales were found to correlate significantly with measures of anxiety and depression in the Symptom Check List 90, general neuroticism and interpersonal sensitivity of the Maudley Personality Inventory. Finally, factor analysis, both on a development sample and cross validation sample, revealed the three factor structure as predicted by the model (Hirschfield. Klerman, Gough, Barrett, Korchin & Chodoff, 1977).
**Self Diversity: Self-Perception Profile for College Students**

Self diversity was measured by the Self-Perception Profile for College Students (SPPCS) (Harter & Neemann, 1986; Harter 1996; Keith & Bracken, 1996). The SPPCS is a 54 item scale that provides a measure of self diversity by assessing the young adults perception of the value of and competency in several developmentally relevant areas of a young adult’s life. While there are numerous measures of the self structure and its differentiation (Campbell, Assanand & Di Paula, 2000; Hattie & Marsh, 1996), Harter’s measure was employed for theoretical, practical, and psychometric reasons. The SPPCS was developed upon a strong foundation in developmental theory and was designed specifically for the young adult population which is the focal age group in this present research (Harter, 1983, 1986, 1993, 1996; Harter & Monsour, 1992). Also, the SPPCS is one of the simpler and briefer self instruments, yet it still measures a multi-dimensional breadth of self domains in a psychometrically sound way. Thirteen domains relevant to young adults are evaluated in the SPPCS. These domains include: creativity, intellectual ability, scholastic competence, job competence, athletic ability, appearance, romantic relationships, social acceptance, close friendships, parent relationships, humour, morality, and global self worth. Norms are provided for the scale, sub-scales, and genders. Psychometrically, the SPPCS demonstrates adequate reliability and validity. In terms of reliability, the SPPCS has a internal consistency of $\alpha$ of .84 (Harter & Neemann, 1986). With respect to construct validity, factor analyses demonstrated a 12 factor structure corresponding to the 12 sub-scales with no significant cross loadings (Harter & Neemann, 1986). In addition, Harter & Neemann, (1986) found evidence of convergent validity in that appropriate sub-scales were correlated with other measures of domains like social support and self esteem.
PROCEDURE

After the research proposal received clearance by the ethics review board, respondents were contacted via email lists provided by the departmental subject pool. Upon entering the classroom respondents were provided with the consent form that briefly outlined the nature of the study and their voluntary confidential participation. After the investigator verified that the respondents understood the consent form, answered any questions, and the respondent consented to participate, each respondent was provided with the series of questionnaires and response bubble sheets. The package began with demographic information and was followed by either form one or two of the questionnaire package determined randomly. Form one began with the questionnaire on depression (CES-D), parasuicide (HASS), relational intimacy (SIS), family dysfunction (FAD), shame and guilt (PFQ2), interpersonal dependence (IDI), and finally self diversity (SPPCS). The alternate form of the questionnaire package reversed this order of the questionnaires. Before each participant began completing the questionnaires, the investigator asked each respondent to fill out the questionnaires as completely as possible, indicated to them that there were no right or wrong answers, and that they could freely voice any questions or concerns. Upon completion of the questionnaires the participants were provided with a debriefing form that detailed the nature of the study and included the phone numbers of four local crisis intervention agencies.
CHAPTER III

RESULTS

The statistical analysis was completed using SPSS v.6.0 for Windows. First, a review of the demographic information, with particular attention to suicidal behaviour, will be made. Following this an examination of the normality of the data and the reliability analyses will be reviewed. Then a sequential review of the specific hypotheses regarding the correlations and regression analyses will be presented. All relevant tables regarding the results are presented in sequential order in Appendix A. Following this review of the results a detailed discussion of them will be presented.

Sample Demographics

There were a total of 327 young adult (age 18-25) participants with 69 (21%) males and 258 (79%) females. The mean age of the participants was 21 with a range between 19 and 25 years of age. The average year of academic study was third year. Ethnically 66% of respondents identified themselves as European, 10% as African American, 9% as Asian, 10% as Middle Eastern or West Asian and 5% as Other (e.g., Latino, Aboriginal). While the majority of the respondents of European descent were distributed between the second and fifth generation (93%), the majority of the self identified African American (82%), Asian (89%), and Middle Eastern or West Asian (88%) respondents were distributed within the first and second generations.

The rates and proportional percentages of parasuicidal behaviour can be reviewed in Tables 1 and 2. Of the 327 students, 131 reported suicidal ideation over the last two weeks (i.e., current), and 21 reported attempts over the last two weeks. Of this two week sample, 63 reported serious suicidal thoughts in that they had a plan and/or almost carried out a plan. Of the attempts, 13 were serious in that they
intended to die when attempted and/or required medical attention after the attempt. Over the young adult life time, between 18-25 years of age, 193 reported suicidal ideation and 35 reported attempts. Of this life time sample, 60 reported serious ideation in that they had a plan and/or almost carried out a plan. Of these attempts, 28 were reported as serious in that they intended to die when they attempted and/or required medical attention after the attempt. In sum, a total of 214 (65%) young adults reported a range of suicidal behaviour either over the last two weeks and/or over their young adult life time.

Of these respondents reporting suicidal behaviours over two weeks and life time, slightly unequal numbers of males and females reported suicidal ideation and attempts. Chi Square analyses, which can be reviewed in Table 3, revealed that none of these proportional differences were significant. Table 4 provides the percentage breakdown along ethnic groups concerning the reported rates of ideation, attempt, and motivation, both over the last two weeks and young adult life time (young adult years age 18-25). Across different ethnicities and the two frames there were apparent differences in the distribution for ideation, attempt, and primary motivations for suicidal behaviour. Important cautions when interpreting these rates are reviewed in the discussion. Generationally there appeared to be little difference in the reporting of parasuicidal behaviour over the last two weeks with approximately between 35% to 45% of the first through fifth generation reporting parasuicidal behaviour. In contrast, over the life time proportionally 71% of first generation respondents and 68% of the fourth generation respondents reported a higher percentage of suicidal behaviour, as compared to the second (55%), third (48%), and fifth (56%) generation respondents.

In terms of reasons reported for parasuicidal behaviour, while there were apparent differences, where academic/work or other difficulties generally had higher percentages in comparison with the other categories, there was no large clear priority of one type of impetus versus another. Important to note is that in addition to the primary reasons for suicidal ideation or attempt, many of the respondents identified several additional reasons for his or her parasuicidal behaviour. Over half of the parasuicidal respondents
identified a secondary motivation both over the last two weeks and life time. Just under half of these same respondents identified a tertiary reason in both time frames. Finally, over both time frames, less than a quarter, and subsequently less than ten percent, of the respondents identified a fourth and fifth reason respectively. The percentage breakdown by category for the first three reasons can be reviewed in detail in Tables 5 and 6.

Normality and Reliability Analysis

In terms of normality, the measures of Depression (CES-D), Family Dysfunction (FAD), Shame/Guilt (PFQ-2), Interpersonal Dependence (IDI), and Self Diversity (SPPCS) appeared to be adequately normally distributed with low skewness and kurtosis (i.e., below 1.0. Tabachnick & Fidell 1996; Diekhoff, 1992). The measures of Romantic Relationship Intimacy (SIS), and Parasuicidal Behaviour (HASS-W; HASS-L) demonstrated some moderate skewness and kurtosis (i.e., greater than 1). Although Relationship Intimacy (SIS) had a negative skewness and kurtosis slightly above one, Parasuicidal Behaviour had a more moderate positive skewness and kurtosis (HASS-W; skewness = 2.587 and kurtosis = 7.129; HASS-L: skewness =1.29 and kurtosis = 3.66). These deviations from normality for the measures of parasuicidal behaviour were expected given the relatively low incidence of the behaviour in the general population and are not likely attributable to measurement artifact. The presence of a large sample (i.e., N >200) with established measures, likely mitigate any statistically distorting impact from this low degree of skewness and kurtosis in the subsequent analyses (Tabachnick & Fidell 1996; Diekhoff, 1992; Newby-Clark, 2002, personal communication). Therefore statistical transformations of the data were not necessary to facilitate the statistical analyses.

An analysis of the internal consistency of the eight measures was conducted prior to further analysis to assess their reliability. The results can be seen in Table 7. All of the measures demonstrated high alphas (i.e., >.75) indicating good reliability in this study (Rust & Golombok, 1995). These reliability
findings were consistent with the alphas reported for the individual instruments (Epstein, Lawrence & Bishop, 1983; Friedman & Asnis, 1989; Harder & Zalma, 1990; Harter & Neumann, 1986; Hirschfield. Klerman, Gough, Barrett, Korchin & Chodoff, 1977; Miller & Lefcourt, 1982; Radloff, 1977). A t-test was employed to compare the two alternate forms of the questionnaire package to assess for any fatigue effects. The results can be seen in Table 8. No significant differences were found between the two forms indicating that there was no significant difference between the responses across the two questionnaire forms.

Correlational Findings

Table 9 contains the correlations among the variables and reveals many significant and substantial correlations (i.e., \( r \geq .2 \), Diekhoff, 1992; Jaccard & Becker, 1997) that were consistent with the theoretical expectations. In terms of parasuicide generally, significant correlations were found for Parasuicidal Behaviour, both over the last two weeks (HASS-W) and over the young adults life time (i.e., age 18-25) (HASS-L), and the primary variables of Depression (CES-D), Family Dysfunction (FAD), Romantic Relationship Intimacy (SIS), Shame (PFQ-S) Guilt (PFQ-G), Interpersonal Dependence (IDI), and Self Diversity (SPPCS). These sets of correlations indicated that increasing parasuicidal behaviour was associated with greater degree of depression, family dysfunction, shame, guilt, and interpersonal dependence, as well as lower romantic relational intimacy and self diversity.

With regard to shame and suicide (1) it was expected that greater parasuicidality will be positively related to a greater experience of shame. This predicted association with Shame (PFQ-S) was found both for Parasuicidal Behaviour over the last two weeks (HASS-W, \( r = .2845, p < .001 \)) and Parasuicidal Behaviour over the young adults' life time (i.e., age 18-25) (HASS-L, \( r = .2105, p < .001 \)). Interestingly, a similar association was found for Guilt (PFQ-G) both with current Parasuicidal Behaviour (HASS-W, \( r = .3176, p < .001 \)) and Parasuicidal Behaviour over the lifetime (HASS-L, \( r = .3336, \))
the presence of these two correlations was consistent with the strong correlation between Shame (PFQ-S) and Guilt (PFQ-G) \( r = .5905, p < .001 \). A test of the difference in strength between two non-independent correlations (Howel, 1997) was employed to evaluate any differences between Shame (PFQ-S) and Guilt (PFQ-G) across Parasuicidal Behaviour (HASS-W/L). There was no significant difference found between Shame (PFQ-S, \( r = .2845, p < .001 \)) and Guilt (PFQ-G, \( r = .3176, p < .001 \)) for current Parasuicidal Behaviour (HASS-W) (Mutual \( r = .5905, t (324) = -0.69, p > .05 \)). In contrast there was a difference for Suicidal Behaviour over the lifetime (HASS-L) where the correlation between Guilt (PFQ-G, \( r = .3336, p < .001 \)) and Suicidal Behaviour (HASS-L) was found to be significantly greater than the correlation of Suicidal Behaviour (HASS-L) with Shame (PFQ-S, \( r = .2105, p < .001 \)) (Mutual \( r = 5905, t (324) = -2.58, p < .05 \)).

As reviewed in the introduction, Lester (1998) found the connection between suicide and shame more prominent for men than for women, and more for ideation than attempt. Additionally he found guilt was not significantly correlated with suicidality or gender. None of these findings were replicated in this study. With regard to gender differences, in this research there was no significant difference in the degree of Shame (PFQ-S) for currently parasuicidal males (\( M = 16.00, SD = 5.39 \)) as compared to currently parasuicidal females (\( M = 17.82, SD = 4.56 \), \( t (129) = -1.90, p > .05 \)). Similarly, no significant difference in Shame (PFQ-S) was found for parasuicidal males over their lifetime (\( M = 16.08, SD = 5.11 \)) when compared to parasuicidal females over their lifetime (\( M = 17.09, SD = 4.54 \), \( t (191) = -1.27, p > .05 \)). Given the presence of significant correlations between Guilt (PFQ-G) and the parasuicidality of young adults similar comparative analyses were conducted with this variable. As with shame, no significant gender differences were found between Guilt (PFQ-G) for currently parasuicidal males (\( M = 9.66, SD = 4.51 \)) and currently parasuicidal females (\( M = 10.11, SD = 3.44 \), \( t (129) = -0.59, p > .05 \)). Also no significant difference between Guilt (PFQ-G) for parasuicidal males over their lifetime (\( M = 9.63, SD = 4.09 \)) and parasuicidal females over their lifetime (\( M = 9.78, SD = 3.33 \), \( t (191) = -0.26, p > .05 \) was
found. In sum, these findings indicated that there was no significant difference in the degree of shame or guilt between men and women respondents who report parasuicidal behaviour currently or in their lifetime. With respect to differences in Shame (PFQ-S) between suicidal ideation and attempt, significant differences were found. Current attempters ($M = 19.61, SD = 4.91$) reported significantly more Shame (PFQ-S) than ideators ($M = 16.93, SD = 4.71$), $t(129) = -2.37, p < .05$. Similarly over the lifetime, attempters ($M = 18.31, SD = 5.12$) reported significantly more Shame (PFQ-S) than ideators ($M = 16.53, SD = 4.54$), $t(191) = -2.05, p < .05$. This pattern of results was repeated for Guilt (PFQ-G). Current attempters ($M = 12.09, SD = 2.54$) reported significantly more Guilt (PFQ-G) than ideators ($M = 9.60, SD = 3.79$), $t(129) = -2.89, p < .05$. Also, over the lifetime, attempters ($M = 11.20, SD = 3.17$) reported significantly more Guilt (PFQ-G) than ideators ($M = 9.42, SD = 3.51$), $t(191) = -2.75, p < .05$.

Given the theoretical specificity of shame in terms of suicidal perturbation in contrast to depression (2) it was expected that the correlation between parasuicidal behaviour and shame comparatively would be significantly greater than the correlation between parasuicidal behaviour and depression. Referring to the inter-correlations among the variables in Table 9 this was clearly not found. Verification using a test of the difference in strength between two non-independent r’s (Howel, 1997) revealed that the strength of association between current Parasuicidal Behaviour (HASS-W) and Depression (CES-D, $r = .5458$, $p < .001$) was significantly greater than the correlation with Shame (PFQ-S, $r = .2845$, $p < .001$) (Mutual $r = .3764$, $t(324) = 4.92 p < .05$). This finding was repeated for parasuicidal behaviour over the lifetime. The strength of association between Parasuicidal Behaviour (HASS-L) and Depression (CES-D, $r = .4574$, $p < .001$) was also significantly greater than with Shame (PFQ-S, $r = .2105$ $p < .001$) (Mutual $r = .3764$, $t(324) = 4.41 p < .05$).

In terms of romantic relationship difficulties (3) it was hypothesized, that for young adults poorer relationships would be negatively related to a greater experience of shame and interpersonal dependence, and positively related with lower self diversity. Again, referring to the inter-correlations in
Table 9, one of these predicted relationships was found. Romantic Relational Intimacy (SIS) was found to be significantly and substantially correlated with Self Diversity (SPPCS, \( r = .2996 \) p<.001) but not with Shame (PFQ-S, \( r = -.1351 \) p>.05) or with Interpersonal Dependence (IDI, \( r = .0282 \) p>.05). The pattern of correlations of Romantic Relational Intimacy (SIS) with the 13 Self Diversity (SPPCS) sub-scales revealed positive, significant, and substantial (i.e., \( r \geq .2 \)) Diekhoff, 1992; Jaccard & Becker, 1997) associations with three sub-scales including romantic relationships, close friendships, and self worth. Interestingly, while Shame (PFQ-S) was not found to be significantly negatively related to lower Romantic Relational Intimacy (SIS), Guilt (PFQ-G, \( r = -.2011 \), p<.001) was. Next (4), since it has been previously found that parasuicidal behaviour was positively related to greater depression and negatively with poorer romantic relationships, it was expected that these findings would be replicated. The relationship between Depression (CES-D) and current Parasuicidal Behaviour (HASS-W, \( r = .5458 \), p<.001), and life time Parasuicidal Behaviour (HASS-L, \( r = .4571 \), p<.001), was unequivocally replicated with strong correlational findings. The negative relationship between Romantic Relational Intimacy (SIS) and current Parasuicidal Behaviour (HASS-W, \( r = -.2008 \), p<.001) was significant. A similar relationship was not found for Parasuicidal Behaviour (HASS-L, \( r = -.1040 \), p>.05) over the young adult life time.

Concerning family dysfunction (5) it was hypothesized that greater family difficulties would be positively related to a higher interpersonal dependence and negatively related to lower self diversity in young adults. Family Dysfunction (FAD) was found to be significantly and negatively correlated with Self Diversity (SPPCS, \( r = -.3524 \) p<.001) but not with Interpersonal Dependence (IDI, \( r = .0755 \) p>.05). This indicated that as family dysfunction increases there is a corresponding decrease in self diversity but no increase in interpersonal dependence. The pattern of correlations of Family Dysfunction (FAD) with the 13 Self Diversity (SPPCS) sub-scales revealed negative, significant, and substantial (i.e., \( r \geq .2 \)) Diekhoff, 1992; Jaccard & Becker, 1997) associations with seven sub-scales including parental relationships, close friendships, self worth, romantic relationships, social acceptance, job competence, and morality.
Additionally (6), since it has been previously found that greater family dysfunction was positively correlated with depression and parasuicide, and negatively with poorer relationships, it was expected that these findings would be replicated. This expectation was met in that findings revealed greater Family Dysfunction (FAD) was related with correspondingly lower Romantic Relational Intimacy (SIS, \( r = - .2958, \ p < .001 \)) and greater Depression (CES-D, \( r = .3416, \ p < .001 \)) and Parasuicidal Behaviour (HASS-W/L, \( r = .3064, \ p < .001; r = .3213, \ p < .001 \) respectively). The pattern of correlations of Romantic Relational Intimacy (SIS) with the 7 Family Dysfunction (FAD) sub-scales revealed negative, significant, and substantial (i.e., \( r \geq .2 \) Diekhoff, 1992; Jaccard & Becker, 1997) associations with five sub-scales including general functioning, affective involvement, affective responsiveness, behavioural control, and roles. For Depression (CES-D), the pattern of correlations with the Family Dysfunction (FAD) sub-scales revealed negative, significant, and substantial associations with all seven sub-scales.

Findings Regarding the Regression Analysis

Concerning the aggregate contribution of the above variables to the prediction of the parasuicidal behaviour of young adults it was expected that (7) the experience of shame, relationship difficulties, family dysfunction, interpersonal dependence, low self diversity, and depression will contribute to the prediction of young adult parasuicidal behaviour. Two multiple regression analyses were undertaken to evaluate the contribution of the primary variables (Depression (CES-D), Family Dysfunction (FAD), Shame (PFQ-S), Guilt (PFQ-G), Interpersonal Dependence (IDI), Self Diversity (SPPCS), and Relationship Intimacy (SIS)) to the prediction of parasuicidal behaviour in young adults. Despite the theoretical focus on shame in this research, the variable of guilt was included in these analyses because of the empirical findings with it in the correlational analyses. The direct method of the Standard Multiple Regression strategy was employed since this method evaluates the unique contribution of each independent variable to the prediction of the dependent variable (Tabachnick & Fidell 1996; Diekhoff, 1992; Gardner
In each of the analyses that follow few outliers (e.g. ≤5) were found for each of the solutions as indicated by standardized residuals (i.e., > ± 3.3), nor were they problematic in terms of influence (i.e., a product of leverage and discrepancy) on the regression solution as indicated by Cooks Distance (i.e., none >1.0) (Tabachnick & Fidell, 1996). Additionally, although some of the bivariate correlations between the variables were high, none were great enough (i.e., > .7 - .9) to create any multicollinearity or singularity problems in the regression analyses (Tabachnick & Fidell, 1996).

The first regression analysis evaluated the degree to which the variables of Depression (CES-D), Family Dysfunction (FAD), Shame (PFQ-S), Guilt (PFQ-G), Interpersonal Dependence (IDI), Self Diversity (SPPCS), and Relationship Intimacy (SIS) predicted current (i.e., over the last two weeks) Parasuicidal Behaviour (HASS-W). Reviewing the relevant subset of correlations on Table 10, all seven predictors were significantly correlated with suicidal behaviour over the last two of weeks. Table 11 displays the unstandardized regression coefficients (B), their standard error (SE B), the standardized regression coefficients (β), multiple R, multiple R², adjusted R², semi-partial correlation (sr² unique), the t-test, and level of significance. The multiple correlation demonstrated an R = .5717 (R² = .3268) and was found to be significant, F (7, 319) = 22.129, p < .0001. This indicated that the significant predictors accounted for 33% of the variance in predicting parasuicidal behaviour over the last two weeks. In terms of the regression solution, two variables Depression (CES-D, t = 7.82 p < .0001) and Family Dysfunction (FAD, t = 2.26 p < .05) contributed significantly to the prediction of parasuicidal behaviour over the last two weeks. All of the other variables, Shame (PFQ-S, t = .534 p > .05), Guilt (PFQ-G, t = 1.29 p > .05), Interpersonal Dependence (IDI, t = .718 p > .05), Self Diversity (SPPCS, t = .414 p > .05), and Relationship Intimacy (SIS, t = .997 p > .05) were found not to contribute significantly to parasuicidal behaviour in the regression equation despite having significant correlations with it. In terms of the unique contribution of the individual predictor variables to the variance of the dependent variable, Depression (CES-D) and Family Functioning (FAD) contributed 13% and 1% of the variance respectively in the parasuicidal behaviour.
over the last two weeks.

Next the predictor variables were examined in terms of their prediction of parasuicidal behaviour over the young adult life time (years 18-25) Suicidal Behaviour (HASS-L). Table 12 reveals the inter-correlations between Suicidal Behaviour (HASS-L) and Depression (CES-D), Family Dysfunction (FAD), Shame (PFQ-S), Guilt (PFQ-G) Interpersonal Dependence (IDI), and Self Diversity (SPPCS). All the correlations of the variables with Suicidal Behaviour (HASS-L) were significant except for Relationship Intimacy (SIS). Table 13 contains the pertinent results of this regression. The multiple correlation demonstrated an $R = .5243$ ($R^2 = .2748$) and was found to be significant, $F(7, 319) = 17.27$. $p < .0001$. This indicated that the significant predictors accounted for 27% of the variance in predicting parasuicidal behaviour over the life time. In terms of the regression solution, three variables Depression (CES-D, $t = .545$ $p < .0001$), Family Dysfunction (FAD, $t = .348$ $p < .001$) and Guilt (PFQ-G, $t = .307$ $p < .05$) contributed significantly to the prediction of suicidal behaviour over the young adult life time. All of the other variables, Shame (PFQ-S, $t = .61$ $p > .05$), Interpersonal Dependence (IDI, $t = .77$ $p > .05$), Self Diversity (SPPCS, $t = .15$ $p > .05$), and Relationship Intimacy (SIS, $t = .01$ $p > .05$) were found not to contribute significantly to suicidal behaviour despite having significant correlations with it. In terms of the unique contribution of the individual predictor variables to the variance of Parasuicidal Behaviour (HASS-L), Depression (CES-D), Family Dysfunction (FAD), and Guilt (PFQ-G) contributed most of the variance (7%, 3% and 2% respectively) in the parasuicidal behaviour over the young adult life time.

Findings Regarding Mediation Analyses for Depression

In sum, with regard to the regression hypothesis (7), the findings were interesting in terms of the contrast between the theoretical expectations and the variables that were actually found to be significant predictors of parasuicidal behaviour. Since Depression (CES-D) was clearly the largest predictor, which is a consistent with recent decades of suicidological research (Egmond & Diekstra, 1990; Davila & Daley,
2000; Lester, 1992), and strongly correlated with many of the primary variables (refer to Table 9) it may have occluded other forms of distress (Brown & Moran, 1998; Gilbert, 1998; Lansky, 1991; Tantam, 1998). Given this, mediational analyses (M1) were undertaken to ascertain the degree to which depression may have obscured the influence of the other variables by acting as a mediator (Kenny, 2001). A variable acts as a mediator when it is an intervening variable between the predictor and criterion variables that to an extent affects the relation between the predictor variables and the criterion variable (Barron & Kenny, 1986, Kenny, Kashy, & Bolger, 1998; Kenny, 2001; Newby-Clark, 2002, personal communication). The issue is that the other important predictor variables that share variance with depression, and ultimately contribute to $R^2$, may be non-significant as regression coefficients because they are strongly correlated with depression (Tabachnick & Fidell, 1996; Kenny, Kashy, & Bolger, 1998; Kenny, 2001). Following Kenny's three stage methodology (Barron & Kenny, 1986, Kenny, Kashy, & Bolger, 1998; Kenny, 2001), the first step of the mediational analysis involved removing Depression (CES-D) from the regression analyses to evaluate the contribution of the other variables to parasuicidal behaviour without the influence of Depression (CES-D). The second step involved an analysis to evaluate which of the other independent variables predicted Depression (CES-D) to indicate the extent to which the other variables contributed substantially to Depression (CES-D) as a mediator. Finally in the third step, the hierarchical regression method was employed to evaluate the degree to which the other variables entered as a block contribute to $R^2$ while the contribution of Depression (CES-D) is previously accounted for in the regression solution. This step enabled the assessment of the decrement in predictive power of the block of variables with the influence Depression (CES-D) as compared to the first step of the mediational analysis without the influence of Depression (CES-D).

For the first step of the mediational analysis, the predictor variables were examined in terms of their prediction of current (i.e., over the last two weeks) Parasuicidal Behaviour (HASS-W) without Depression (CES-D). Table 14 reveals the inter-correlations between the variables. Table 15 contains the
results of this regression. The multiple correlation demonstrated an $R = .4446$ ($R^2 = .1975$) and was found to be significant, $F (6, 320) = 13.129, p < .0001$. This indicated that the significant predictors accounted for nearly 20% of the variance in predicting current \textit{Parasuicidal Behaviour} (HASS-W) without the inclusion of \textit{Depression} (CES-D). In terms of the regression solution, three variables \textit{Family Dysfunction} (FAD, $t = 3.28, p < .001$), \textit{Guilt} (PFQ-G, $t = 2.15, p < .05$), and \textit{Self Diversity} (SDQ, $t = 2.24, p < .05$) contributed significantly to the prediction of current parasuicidal behaviour. All of the other variables, \textit{Shame} (PFQ-S, $t = 0.85, p > .05$), \textit{Relationship Intimacy} (SIS, $t = -1.35, p > .05$) and \textit{Interpersonal Dependence} (IDI, $t = 1.78, p > .05$) were found not to contribute significantly to current parasuicidal behaviour despite having significant correlations with it. Notably, although \textit{Interpersonal Dependence} (IDI) was not significant in the regression, it did approach significance. In terms of the unique contribution of the individual predictor variables to the variance of current \textit{Parasuicidal Behaviour} (HASS-W), \textit{Family Dysfunction} (FAD), \textit{Guilt} (PFQ-G), and \textit{Self Diversity} (SPPCS) contributed 2.7%, 1.3%, and 1.2% respectively, to the variance in current \textit{Parasuicidal Behaviour} (HASS-W) without \textit{Depression} (CES-D). The first step of the mediational analysis was repeated with the predictor variables in terms of their prediction of \textit{Parasuicidal Behaviour} (HASS-L) over the young adult life time without \textit{Depression} (CES-D). Table 16 reveals the inter-correlations between the variables, all of which were significant except \textit{Relationship Intimacy} (SIS). Table 17 contains the results of this regression. The multiple correlation demonstrated an $R = .4527$ ($R^2 = .2049$) and was found to be significant, $F (6, 320) = 13.75, p < .0001$. This indicated that the significant predictors accounted for 20% of the variance in predicting \textit{Parasuicidal Behaviour} (HASS-L) over the life time without \textit{Depression} (CES-D). In terms of the regression solution, four variables including, \textit{Family Dysfunction} (FAD, $t = 4.25, p < .001$), \textit{Guilt} (PFQ-G, $t = 3.67, p < .001$), \textit{Self Diversity} (SDQ, $t = -2.11, p < .05$), and \textit{Interpersonal Dependence} (IDI, $t = 2.54, p > .01$), contributed significantly to the prediction of \textit{Parasuicidal Behaviour} (HASS-L) over the life time. Similar to the above regression analysis for current parasuicidal behaviour, the remaining variables of \textit{Shame} (PFQ-S, $t = 1.27$
and Relationship Intimacy (SIS, $t = 0.64$ $p > .05$) were not significant contributors to Parasuicidal Behaviour (HASS-L) over the life time. In terms of the unique contribution of the individual predictor variables to the variance of Parasuicidal Behaviour (HASS-L), Family Dysfunction (FAD), Guilt (PFQ-G), Self Diversity (SPPCS), and Interpersonal Dependence (IDI) contributed 4.5%, 3.3%, 1.1%, and 1.6% respectively to the variance in Parasuicidal Behaviour (HASS-L) over the life time. In sum, this first step of the mediational analysis demonstrated that, in the absence of the influence of Depression (CES-D), several additional predictor variables emerged as significant, and the strength of the previously found significant predictors increased.

In the second step of the mediational analysis, the degree to which the primary variables contributed to the prediction of Depression (CES-D) was examined. It was found that the combination of many of the primary variables (Family Dysfunction (FAD), Shame (PFQ-S), Guilt (PFQ-G), Interpersonal Dependence (IDI), Self Diversity (SPPCS)) contributed significantly to the prediction of Depression (CES-D). Table 18 and Table 19 contains the inter-correlations of the variables and results of the regression analysis for Depression (CES-D). The multiple correlation demonstrated an $R = .6082$ ($R^2 = .3699$) and was found to be significant, $F(6, 320) = 31.31, p < .0001$. This suggests that the significant predictors accounted for 37% of the variance in predicting depression. In terms of predictors, four variables, Family Dysfunction (FAD, $t = 2.96$ $p < .01$), Guilt (PFQ-G, $t = 2.38$ $p < .05$), Interpersonal Dependence (IDI, $t = 2.78$ $p < .001$), and Self Diversity (SPPCS, $t = 6.59$ $p < .001$) contributed significantly to the prediction of Depression (CES-D). Consistent with the many previous analyses, Shame (PFQ-S, $t = 0.93$ $p > .05$) and Relationship Intimacy (SIS, $t = -1.08$ $p > .05$) were found not to contribute significantly to Depression (CES-D) despite the presence of significant correlations with it. In terms of the unique contribution of the individual predictor variables to the variance of Depression (CES-D), Self Diversity (SPPCS), Family Dysfunction (FAD), Interpersonal Dependence (IDI), and Guilt (PFQ-G) contributed 8.5%, 1.7%, 1.5%, 1.1% respectively, of the variance in Depression (CES-D). In sum, the second step of
the mediational analysis revealed that several of the variables are strong, significant predictors of Depression (CES-D), which is consistent with their inter-correlations. In terms of the mediational analysis this finding revealed that Depression (CES-D) was a variable that received substantial input from the other variables.

Finally, in the third step of the mediational analysis, the Hierarchical Regression method used to examine the degree to which the variables entered as a block accounted for a significant amount of the variation in Parasuicidal Behaviour (HASS) after Depression (CES-D) was entered in the regression. The hierarchical method was used specifically because it enabled the determination of whether one or more predictors add significantly to $R^2$ (i.e., significant change in $R^2$) after one or more predictors have already been included in the regression equation (Barron & Kenny, 1986; Diekhoff, 1992). For current Parasuicidal Behaviour (HASS-W), Depression (CES-D) was first entered into the regression equation and the results can be reviewed in Table 20. Refer to the previous Table 14 for the inter-correlations between the variables. Second, Family Dysfunction (FAD), Shame (PFQ-S), Guilt (PFQ-G), Interpersonal Dependence (IDI), Self Diversity (SPPCS), and Relationship Intimacy (SIS) were added to the regression equation as a block. The results can be reviewed in Table 20. With the addition of this block of predictors there was a significant increase in $R^2$ ($R^2$ change + 2.9%), $F(7, 319) = 2.28, p < .05$. This indicated that the significant predictors within this block accounted for an additional 3% of the variance in predicting current Parasuicidal Behaviour (HASS-W) after the predictive contribution of Depression (CES-D) had been accounted for. With regard to the mediational analysis, while this contribution was significant, it was a substantial decrease from an $R^2$ of approximately 20% obtained with these variables predicting current Parasuicidal Behaviour (HASS-W) without Depression (CES-D) in the first step of the mediational analysis. This decrease revealed that, for current Parasuicidal Behaviour (HASS-W), Depression (CES-D) was absorbing a substantial amount of the predictive contributions of the other variables.
The same third step of the mediational analysis was repeated for Parasuicidal Behaviour (HASS-L) over the life time and it revealed similar results. First, Depression (CES-D) was entered and the results can be reviewed in Table 21. Refer to the previous Table 16 for the inter-correlations between the variables. Second, the six variables were then entered as a block and the results can be reviewed in Table 21. With the addition of the block of predictors there was a significant increase in $R^2$ ($R^2$ change + 6.6%), $F(7, 319) = 4.83, p < .001$. This revealed that the significant predictors of this block accounted for nearly 7% of the variance in predicting Parasuicidal Behaviour (HASS-L) over the life time after the predictive contribution of Depression (CES-D) had been accounted for. While this increase was significant it was a substantial decrease from an $R^2$ of approximately 27% obtained with these variables predicting Parasuicidal Behaviour (HASS-L) over the life time without Depression (CES-D). Similar to the hierarchical analysis for current Parasuicidal Behaviour (HASS-W), this decrease in predictive strength revealed that, for Parasuicidal Behaviour (HASS-L) over the life time, Depression (CES-D) was also absorbing a substantial amount of the predictive contributions of the other variables. In sum, these three steps of the mediational analysis indicated that Depression (CES-D) absorbed a substantial amount of the variance in the other variables in their prediction of Parasuicidal Behaviour (HASS). This finding revealed that Depression (CES-D) was impinging on the relationship between the block of predictor variables and the criterion variable, and therefore was functioning as a mediator (Barron & Kenny, 1986; Kenny, Kashy, & Bolger, 1998; Kenny, 2001; Newby-Clark, 2002 personal communication).

Findings Regarding Mediational Analyses for Shame and Guilt

A similar follow up mediational analysis (M2) was undertaken with Shame (PFQ-S) and Guilt (PFQ-G) given the empirical findings regarding Guilt (PFQ-G) that were contrary to the theoretical importance of Shame (PFQ-S) in this research. That Shame (PFQ-S) was significantly correlated with both Depression (CES-D) and Parasuicide (HASS) and yet was not a significant predictor of either suggested
that its predictive power was substantially diminished in the inter-correlations with the other variables. For this mediational analysis Guilt (PFQ-G) was the logical choice to evaluate as a mediator for Shame (PFQ-S) toward the prediction of Depression (CES-D) given that Guilt (PFQ-G) was a significant predictor of Depression (CES-D) and Parasuicidal Behaviour (HASS), that Shame (PFQ-S) and Guilt (PFQ-G) overlap conceptually, and were strongly correlated in this study. Depression (CES-D) was designated as the criterion variable over Parasuicidal Behaviour (HASS) because in the previous mediational analysis Depression (CES-D) was a mediator between Guilt (PFQ-G) and Parasuicidal Behaviour (HASS), and Shame (PFQ-S) predicted neither Depression (CES-D) or Parasuicidal Behaviour (HASS), suggesting that the mediator relationship for Shame (PFQ-S) likely occurred prior to Depression (CES-D) or Parasuicide (HASS). Following Kenny's three stage methodology (Barron & Kenny, 1986, Kenny, Kashy, & Bolger, 1998; Kenny, 2001), this mediational analysis was done by first removing Guilt (PFQ-G) from the regression analysis to evaluate the contribution of Shame (PFQ-S) toward Depression (CES-D) without the influence of Guilt (PFQ-G). Second, an analysis was undertaken to evaluate the degree to which Shame (PFQ-S) predicted Guilt (PFQ-G). Finally third, using a hierarchical regression method, the degree to which Shame (PFQ-S) contributed to $R^2$ in the prediction of Depression (CES-D) after Guilt (PFQ-G) was accounted for was undertaken to assess the decrement in predictive power of Shame (PFQ-S) from the first step of the mediational analysis.

In the first step of the mediational analysis Shame (PFQ-S) was examined in terms of its prediction of Depression (CES-D) without the influence of Guilt (PFQ-G). Refer back to Table 9 the inter-correlations between the variables. Table 22 contains the results of this regression. The multiple correlation demonstrated an $R = .3764$ ($R^2 = .1416$) and was found to be significant, $F (1, 325) = 15.64, p < .0001$. This indicated that Shame (PFQ-S) uniquely accounted for nearly 15% of the variance in predicting Depression (CES-D) without Guilt (PFQ-G) included in the regression equation. In terms of the mediational analysis this finding revealed that Shame (PFQ-S, $t = 7.32, p < .0001$) contributed significantly to
the prediction of Depression (CES-D) in the absence of the influence of Guilt (PFQ-G) in the regression.

In the second step of the mediational analysis it was examined the degree to which Shame (PFQ-S) contributed to the prediction of Guilt (PFQ-G). Again refer back to Table 9 the inter-correlations between these two variables. Table 23 contains results of the regression analysis. The multiple correlation revealed an $R = .5905$ ($R^2 = .3487$) and was found to be significant, $F (1, 325) = 174.03. p < .0001$. This demonstrated that Shame (PFQ-S) uniquely accounted for 35% of the variance in predicting Guilt (PFQ-G), and this contribution was significant (PFQ-S, $t = 13.19$ $p < .0001$). With regard to the mediational analysis this finding revealed that Shame (PFQ-S) contributed substantially to Guilt (PFQ-G).

Finally in the third step of the mediational analysis, the Hierarchical Regression method was used to examine the degree to which Shame (PFQ-S) accounted for a significant amount of the variation in Depression (CES-D) after Guilt (PFQ-G) was entered in the regression equation. Refer to the previous Table 9 for the inter-correlations between the variables. First, Guilt (PFQ-G) was entered in the hierarchical regression and the results can be seen in Table 24. Second, Shame (PFQ-S) was then entered to the regression solution. Importantly with the addition of Shame (PFQ-S) there was a significant increase in $R^2$ ($R^2$ change + 3.2%), $F (2, 324) = 37.21. p < .0001$. This increase demonstrated that Shame (PFQ-S) accounted for 3% of variance in predicting Depression (CES-D) when the influence of Guilt (PFQ-G) was previously accounted for. While this finding was significant, it was a substantial decrease from an $R^2$ of approximately 15% obtained in the first step of the mediational analysis with Shame (PFQ-S) predicting Depression (CES-D) without the influence of Guilt (PFQ-G). This substantial reduction indicated that Guilt (PFQ-G) absorbed a relatively large amount of variance in Shame (PFQ-S) when predicting Depression (CES-D). In sum, this mediational analysis revealed that Guilt (PFQ-G) was functioning as a mediator because it was, in part, affecting the relationship between Shame (PFQ-S) and the criterion variable, Depression (CES-D) (Barron & Kenny, 1986; Kenny, Kashy, & Bolger, 1998; Kenny, 2001; Newby-Clark, 2002 personal communication).
CHAPTER IV

DISCUSSION

The purpose of this study was to build on previous theory and research and develop a more comprehensive conception of the specific psychological aspects of parasuicidal behaviour in young adults. From the literature review and theoretical conceptualization, several important influences appeared relevant to the suicidal behaviour of young adults. These influences included the developmental context of young adults and romantic relationship problems; family dysfunction, self diversity, and interpersonal dependence; and finally shame and depression. Theoretically it was argued that it may be the experience of shame that, more specifically than depression, characterized the proximal negative affective process involved in the connection of romantic relationship problems with young adult parasuicidal behaviour. It was additionally argued that two variables theoretically related to family dysfunction, greater interpersonal dependence and lower self diversity, may be abetting these romantic relationship problems. That these variables theoretically act in concert with each other also suggested that they contribute to the prediction of parasuicidal behaviour in young adults. This study found valuable results that supported the theoretical conception presented in this research but also challenged it. The reduction of theoretically relevant variables to a few significant variables empirically in the regression raised some interesting questions regarding the interrelationship among the variables. The concern was that other important variables like relationship problems, shame, self diversity, and interpersonal dependence became non-significant because they were strongly correlated with other variables (Tabachnick & Fidell, 1996). The mediational analyses clarified important interrelationships and thereby addressed a limitation inherent in multiple regression analysis in suicide research (e.g., Lester, 2000). Most importantly these analyses revealed several
additional hypothesized variables, occluded by depression and guilt, that did contribute to the depression and parasuicidal behaviour of young adults. This provided additional support toward the theoretical conceptualization presented in this research and contributed several important ideas toward the understanding of the psychological processes involved in the parasuicidal behaviour of young adults. The following discussion examines the explanations and implications of these issues with the demographic trends and the variables within the theoretical structure presented. To conclude this discussion a review of the key empirical findings and theoretical and clinical implications will be rendered.

THE DEMOGRAPHIC TRENDS OF YOUNG ADULT Parasuicide

The current and lifetime incidence rates of parasuicidal behaviour (i.e., range of ideation to attempt) found for young adults in this study were consistent with previous societal and local demographic research (Sakinofsky & Leenaars, 1997; Sakinofsky, 1998; Statistics Canada, 2001; Wallace, 1994). The rates in this research, notably with 65% of young adults reporting a range of parasuicidal behaviour currently and/or over their life time, underscore the pervasive presence of parasuicidality in the young adult years. While this over all percentage represented a range of parasuicidal behaviour, that 20% indicated serious ideation and 10% reported attempts over the young adult lifetime suggested that a sizeable segment of the young adult population was experiencing a significant degree of distress and difficulty. These rates echo suicidologists’ (e.g., Diekstra, 1996; Weir & Wallington, 2001) concern that, based on the numbers, suffering, and social loss, suicidal behaviour among young people represents a significant public health problem. Within the demographic data gathered, some interesting trends were uncovered with regard to gender, ethnicity, and motivation for parasuicidal behaviour. These trends are also relevant to the following discussion of the relationships among the variables.

Demographic Trends of Gender
Briefly, for gender there were no significant proportional differences found for females or males across suicidal ideation, serious suicidal ideation, suicide attempt, and serious suicide attempt, both over a recent two week period and their young adult life time. This absence of gender differences is interesting in that it differs from the commonly found differences, particularly in terms of ideation, attempt, and seriousness. Suicidological research often report women having more ideation and attempts than men, and men having more serious attempts than women (e.g., Canetto, 1997; Canetto & Sakenofsky, 1998; Hawton, 2000; Sakenofsky & Leenaars, 1997; Sakenofsky, 1998). These gender differences have been found for youth ranging from childhood to young adults (Beautrais, 2002; Safer, 1997), as well as university students (Langhinrichsen-Rohling, Sanders, Crane, Monson, 1998). The absence of gender differences in this present research are similar to previous local suicidological research at the University of Windsor (e.g., Oosterhoff, 1998; Wallace, 1994). The findings are therefore not easily generalizable, and speculation as to their meaning is premature, except that for this sample, women and men appear more similar than different across the range of parasuicidal behaviour. This is interpretatively important in that the findings and implications in this study were not limited or qualified by concerns about gender differences. Nonetheless these findings should be followed up in future research to assess whether the absence of differences represents a reliable change in trends in the university population and to adjust prevention strategies accordingly (e.g., King, 1998).

Demographic Trends of Ethnicity

With regard to the proportional differences in reported suicidal ideation and attempt across the five ethnic groups, some important trends were revealed. Compared to the European group, many of the non-European ethnic groups reported relatively high rates of ideation, and particularly attempts, both across the last two weeks and over their young adult life time. Since the majority of the non-European ethnic groups identified themselves as first or second generation, this high incidence trend may reflect the distress
associated with the unique difficulties associated being a recent immigrant (e.g., assimilation vs tradition, acculturation, adjustment in linguistic, educational, work, and social areas. See Berry, 1995; McGoldrick, Giordano & Pearce, 1996 an Trovato, 1998 for reviews of these difficulties). This interpretation is supported by the fact that in terms of primary motivation for parasuicidal behaviour many of the non-European ethnic groups had a relatively heavy concentration in the academic, family, and/or other areas of difficulty. It is critical to note that, although the non-European groups made up 34% of the total sample, any conclusions based on these trends must be strongly qualified given that the individual samples of these groups was relatively small (i.e., n < 35 for each group) and therefore not necessarily representative of their respective populations (see APA, 2002). In addition to this caution, there are the legion of methodological and conceptual issues concerning cultural categories (e.g., meaningfulness, representativeness, generalizability etc) (see Berry, Poortinga, Segall & Dasen, 1992; Goldberger & Veroff, 1995; Kazarian & Evans, 1998; McGoldrick, Giordano & Pearce, 1996; Shweder, 1991; and Stigler, Shweder & Herdt, 1992 for reviews of these issues). Despite such interpretive cautions, more investigation into these trends for non-European early generation groups is strongly suggested along with the appropriate development of prevention and intervention strategies.

**Demographic Trends of Parasuicidal Motivation**

That romantic difficulties figured in a quarter or less of the primary through tertiary reasons for parasuicidal behaviour was unexpected given the plethora of contemporary developmental theory and research that asserts that the establishment and maintenance of romantic relationships are distinctly salient for young adults (e.g., Arnett 2000a, 1999; Feeney, 1999; Hatfield & Rapson, 1999; Michael, Gagnon, Laumann & Kolata, 1997; Paul & White, 1990; Roscoe, Diana & Brooks, 1987; Roscoe, Kennedy & Pope, 1987; Takahashi, 1990). In contrast with previous findings indicating that romantic difficulties are a prominent impetus for young adult suicidal behaviour (e.g., de Anda & Smith, 1993; Hassan, 1995;
Hawton, Haigh, Simkin & Fagg, 1995a; Leenaars, 1989; Meilman, Pattis & Seilman, 1994; Oosterhoff, 1998), slightly over half of the young adults in this study reported academic/work or other difficulties as the primary reason for thinking about or attempting suicide both currently and over their young adult lifetime. This trend does not suggest that romantic relationships are unimportant for young adults developmentally, however it suggests broadening narrow theoretical developmental emphases (e.g., Erikson, 1950, 1968) to incorporate a constellation of foci. Relationship difficulties are relevant generally for a proportion of young adults, although often not singly, but as part of a constellation of developmental foci that are perceived as problematic. The muted presence of relationship problems as a prominent motivation in parasuicidal behaviour likely reflects the contributing factors of socio-demographic trends and idealization. These factors will be explored in more detail in the forthcoming discussion concerning the inconsistent findings with romantic relationships.

Looking at the broader trends in parasuicidal motivation, it was also found that over half of the respondents identified a secondary reason, nearly half of them reported a tertiary reason, and almost a quarter of them indicated a quaternary reason. This motivational trend suggests an important point regarding the understanding of young adult development and parasuicidal behaviour. Developmentally the multiple motivation trend is indicative of the breadth of age-related concerns that compete for a young adult's attention. This is consistent with the demographic and developmental research indicating that young adulthood is one of the busiest time periods developmentally in terms of number of diverse demographic events occurring simultaneously (e.g., changes and decisions regarding work, education, friends, family, and community) (Ahlburg & DiVita, 1992; Arnett, 2000a; 1997; Harter, 1986,1996; Harter & Monsour, 1992; Rindfuss, 1991). In terms of parasuicide, this trend also suggests that, for many young adults, suicidal behaviour is motivated by a constellation of perceived difficulties that span developmentally relevant areas of their lives. This interpretation is consistent with the finding that lower self diversity, which is partly a measure of fewer perceived successful areas of the self (Harter & Neemann, 1986; Harter 1996;
Keith & Bracken, 1996), was correlated with higher parasuicidality and contributed to the prediction of it. This aids the current understanding of young adult suicidal behaviour, in that while there can be a prominent or primary motivation (i.e., trigger), often behind it there is a background of other motivating difficulties. This is valuable practical knowledge in terms of the clinical evaluation for suicide behaviour and risk. Clinically this knowledge suggests that the relative number of difficulties for an individual may be an important warning sign of suicidality. Additionally, with suicidal individuals the likely presence of more than one contributing issue should be assessed and addressed.

Notably, the fact that other difficulties were frequently reported, indicated that there was a range of difficulties faced by young adults not specifically accessed by the five general motivational categories in the suicide assessment instrument. What these other difficulties could be is conjecture, but they undoubtedly reflect other developmentally salient issues that occur in the young adult years (e.g., sexual orientation; generational, gender, or cultural conflicts; substance abuse; financial stress) (see Hines, Garcia-Preto, McGoldrick, Almeida, Weltman, 1997; Michael, Gagnon, Laumann, Kolata, 1997 for reviews of these issues). In addition, the other difficulties could be an amalgam of any of the five categories (e.g., family conflict over young adult choices for romantic partner or career) which were not perceived by respondents to be adequately encapsulated by any single category. For the non-European respondents, the other category may have captured the distress associated with being a recent immigrant (e.g., linguistic or social adjustment, family conflict over differing cultural expectations) (see McGoldrick, Giordano & Pearce, 1996 for review). In future research it would be valuable to assess the broader range and subtle nuances of motivation via a more qualitative methodology, such as interviews, which would potentially provide a greater depth of information not attainable through questionnaire formats (see Smith, Harre, & Langenhove, 1995 for reviews).
SHAME, DEPRESSION, AND Parasuicide

In general, the empirical findings regarding shame and parasuicide were initially equivocal with the correlational and regression findings, but were clarified through the two mediational analyses with depression and guilt. Correlationally, the findings with shame and guilt were interesting primarily in that, while there was a theoretical emphasis on shame in this research, empirically guilt was found to be similarly related in strength to many of the variables. Concerning shame in the first hypothesis it was expected and found that increased parasuicidality of young adults was related to a greater experience of shame. Similarly, guilt was also significantly related to the parasuicidality of young adults. Similar parallel correlational relationships for both shame and guilt were repeated across the variables of depression, family dysfunction, interpersonal dependence, and self-diversity. While there was no significant difference between the strength in the correlations for guilt and shame with current parasuicidal behaviour, there was for guilt over shame for parasuicidal behaviour over the life time. These findings were unexpected because, although guilt was certainly mentioned in the shame and suicide literature reviewed, guilt in relation to suicide has been downplayed theoretically and has been found less relevant empirically (e.g., Hastings, Northman & Tangney, 2000; Lansky, 1991; Lester1997, 1998; Scheff, 1995). With respect to the second hypothesis, it was expected that, based on the theoretical importance of shame as a specific form of perturbation that more accurately specified the proximal distress state connected to parasuicide than depression, the association between parasuicide and shame would be greater than with depression and parasuicide. This difference was clearly not found, nor was it for guilt.

These unexpected findings were repeated with the regression analysis of hypothesis seven in addition to other important findings. For both current (i.e., past two weeks) and life time (age 18-25) parasuicidal behaviour, the significant predictors accounted in the aggregate for approximately one third of the variance, which is a substantial amount given the multi-determined nature of parasuicidal behaviour. In both cases not all of the variables hypothesized to be relevant predictors were found to be significant. For
current parasuicidal behaviour, a two variable solution resulted with only depression and family dysfunction appearing as significant predictors. For parasuicide over the lifetime, a three variable solution resulted that similarly included both depression and family dysfunction, in addition to guilt, as significant predictors. That depression as a predictor accounted for large quantities of the variance in both cases was not surprising given its consistency with the findings of past suicidological research (Abramson, Alloy & Hogan 1998; Clark & Goebel-Fabbri, 1999; Davila & Daley, 2000; Riskind, Long, Williams & White, 2000). The nature of depression and its impact on predicting parasuicidal behaviour from a multi-variable framework will be examined further in the discussion below of its mediational influence. Importantly, that family dysfunction and guilt were significant predictors in the presence of a historically strong predictor indicated that they contributed something strong and unique beyond depression. The significance of the presence of family dysfunction will be examined in detail in the following discussion concerning this variable. With regard to shame, in contrast to the correlational findings, it was not found to be a significant predictor of parasuicidal behaviour, although guilt was. That guilt appeared as a predictor for parasuicidal behaviour over the lifetime was an unexpected deviation from the conceptual framework focussing on shame in this study although it was consistent with the previous differential correlational findings.

There are several related empirical, theoretical, and methodological explanations for these unexpected correlational and regression findings. At a basic level there are two elementary explanations for these findings. The simple empirical explanation for the parallel correlational findings for shame and guilt across the variables concerns the strong correlation between shame and guilt. Statistically given the strength of the correlation of depression with parasuicide in this research, it would have been difficult for shame to surpass depression in terms of strength of association or ultimately predictive power. Decades of research into suicide have demonstrated that depression is one of the strongest predictors of suicide, and that most suicidal individuals have some form of depressive symptoms (Clark & Goebel-Fabbri, 1999; Coyne, 1985; Davila & Daley 2000; Lester, 1992; Riskind, Long, Williams & White, 2000). These
elementary statistical explanations were fundamentally augmented by additional findings regarding the mediational relationships present for shame, guilt, and depression. These mediational explanations are also supplemented by theoretical and methodological issues that include the phenomenological overlap between shame, guilt, and depression; the theoretical differentiation between shame and guilt; the relative ease of acknowledging guilt versus shame; and the presence of non-shame related motivations for parasuicidal behaviour. These explanations will be examined in more detail in the following discussion concerning the mediational findings below.

Regarding depression in the first mediational analysis, it was clearly demonstrated that it was acting as a substantial mediating variable in the previous regression analyses predicting parasuicidal behaviour. To reiterate, a variable acts as a mediator when it is an intervening variable that to an extent influences the relation between the predictor variables and the criterion variable (Barron & Kenny, 1986; Kenny, Kashy & Bolger; Kenny, 2001; Newby-Clark, 2002, personal communication). Acting as a mediator, depression in the regression analysis concealed the predictive contribution of interpersonal dependence and self diversity, in addition to reducing the predictive contribution of family dysfunction and guilt. This mediational relationship existed because these four variables significantly contributed to depression to varying degrees prior to their contribution to parasuicide. Three important points derive from this finding concerning support for the theoretical structure, clarification of interrelationships among the variables, and explanation for the dominance of depression in suicidological research.

The first point is that this mediational finding provided support for the theoretical structure in this research that was equivocal in the correlational and regression findings. The mediational analysis confirmed that, in addition to family dysfunction, lower self diversity and higher interpersonal dependence do contribute, albeit indirectly, to the parasuicidal behaviour of young adults. The substantial degree to which interpersonal dependence and self diversity contributed to depression revealed why these two variables were largely obscured by depression and did not appear as direct predictors of parasuicidality. In sum, this
demonstrated that while depression remained the dominant force in parasuicidal behaviour (e.g., Clark & Goebel-Fabbri, 1999; Davila & Daley, 2000; Riskind, Long, Williams & White, 2000), there are other important affects or difficulties that contribute to it and ultimately toward parasuicidal behaviour. Additionally, that guilt was ultimately found as significant predictor of current parasuicidal behaviour without depression in the first step of the mediational analysis, provided an explanation for the previous temporal differences found in the initial regression analyses. With current parasuicidal behaviour, the majority of guilt's contribution fed into depression which can be conceptualized by the immediacy and intensity of depressive symptoms overwhelming other distinct affects of distress like guilt.

The second point is that this mediational analysis began to reveal the complex interrelationships among these variables in their connection with parasuicidal behaviour. Conceptually the mediational analysis, along with the correlational and regression findings, indicated that the contribution of these variables toward parasuicidal behaviour flows primarily or partially through depression. This finding forges a link between depression and these difficulties because the presence of a mediational relationship means that these difficulties contributed to the presence and form of depression. This is significant in that since these difficulties feed into depression it suggests phenomenologically what the flavour or texture of a particular depression might be like for a young adult. This is valuable clinically because it adds to the sophistication of the understanding of young adult depression and suicide. The recognizable symptoms of depression give a generic topography (e.g., American Psychiatric Association DSM-IV, 1994; Coyne, 1985; Lazarus, 1991; Rehm & Tyndall, 1993; Rehm & Mehta, 1994; Scott & Ingram, 1998) but do not provide the qualitative sense of why an individual is depressed. For example, that guilt contributed to depression provides insight into the idiosyncratic feel of the depression (e.g., self responsibility, blame, regret) (e.g., Baumeister, Stillwell & Heatherton, 1995; Demos, 1988; Lazarus, 1991; Lindsay-Hartz, De Rivera & Mascolo, 1995). Conceptually this suggests that depression can be viewed as kind of a universal repository or idiom of distress and various difficulties. It is the nature of the difficulties and affects that
contribute to depression that give it its subjective qualities beyond the generic symptoms. This argument does not negate the reverse relationship implied in a multiple regression and correlation analysis. The reverse, that depression can reciprocally affect (i.e., aggravate) guilt or the other variables, does not stand in opposition to the mediational relationship presented, but rather likely reflects a realistic state of affairs between all of these variables (e.g., Scott & Ingram, 1998).

Finally, the third point is that this mediational finding provided an explanation as to why depression remains the strongest predictor in suicide research in general. This mediational finding, given that there were no confounding face valid item overlap across the measures, confirmed the phenomenological overlap theorized to exist between depression as a broad syndrome of distress and other forms of dysphoria and distress (Brown & Moran, 1998; Gilbert, 1998; Lansky, 1991; Tantam, 1998). Therefore, in general other variables that access forms of dysphoria or distress will likely contribute substantially to depression to varying degrees. This contribution would occlude their independent presence in predicting suicide to a degree and inflate the statistical prominence of depression. The consequence of this for suicidological research is that basic statistical analyses will reveal depression as the singular difficulty. This is partly an artefact because other forms dysphoria or distress are independently relevant to suicidality, but some of their direct contribution is lost and obscured via their contribution to depression. This has important clinical implications in terms assessment and intervention in that while depression certainly needs to be attended to when evaluating suicidal behaviour in young adults, attention should also be directed toward other affects and difficulties that may be hidden by depression. As is suggested by this research, attention toward these other affects will provide a phenomenological view into the nature of the distress that the individual is experiencing. This empathetic view will effectively guide crisis intervention and longer term treatment in certain therapeutically effective directions (e.g., Anastasopoulos, 1997; Greenberg & Paivio, 1997; Lovett & Maltzberger, 1992).

Regarding shame in the second mediational analysis, guilt was also clearly identified as a
mediating variable for shame in the previous regression analyses predicting parasuicidal behaviour. Since shame was significantly correlated with both depression and parasuicide, and yet was not a significant predictor of either, suggested that its predictive power was diminished in the inter-correlations with other variables. The mediational analysis demonstrated that shame substantially contributed to guilt, which lowered its contributory presence toward depression. This was a valuable finding to the conceptual understanding of the variables because it revealed that the majority of the contribution of shame toward depression, and ultimately parasuicide, was absorbed by guilt. This provided strong empirical support for the theoretical contention in this research that shame is a relevant experience of distress in parasuicidal behaviour, but was concealed because the shame that was acknowledged was embedded in guilt (Brown & Moran, 1998; Gilbert, 1998; Fischer & Tangney, 1995; Hastings, Northman & Tangney, 2000; Kral & Johnson, 1996; Lansky, 1991; Shreve & Kunkel, 1991; Tangney, Burggraf & Wagner, 1995; Tantam, 1998). This finding made an important contribution to suicidological research because it addresses the paucity of empirical data regarding shame and suicide, particularly with young adults, as Hastings, Northman and Tangney (2000), Lester (1997), and Reimer, (1996) have indicated in their reviews. It also added to the parallel research of Hastings, Northman and Tangney (2000) and Lester (1998) who previously demonstrated a connection between suicide and shame. Certainly by being the first study to apply regression and mediational analyses to these affects in terms of young adult suicidal behaviour, this research contributed knowledge beyond a basic association by revealing the predictive and mediational relationships. In terms of shame and guilt this mediational analysis provided valuable information into the interaction of these two similar affects. Of central importance is that shame certainly can be directly present as Lester (1998) or Hastings, Northman and Tangney, (2000) have found, but its presence can also be substantially hidden by guilt and ultimately depression. This mediational quality adds a layer of complexity to the understanding of shame and guilt and their relationship with variables such as depression and parasuicide. Conceptually there are three interrelated points that help to explain the presence of this
mediational relationship between shame and guilt and prominence of guilt over shame in this research. These points concern the experiential overlap and theoretical differentiation between shame and guilt, the relative ease of acknowledging guilt versus shame, and the presence of non-shame related motivations for parasuicidal behaviour.

The first point explains the overlap between these two affects. The mediational relationship between these two affects is consistent with the arguments that shame and guilt substantially overlap experientially and the theoretical distinction between them is too sharp (Gilbert, 1998; Tantam, 1998). Citing the findings of Tangney (1992, 1996), Wicker (1983), Harder (1995) and her own research, Gilbert (1998) argued that there are generally more similarities than differences in lay people’s accounts of these two emotional experiences. In other words, while shame and guilt are distinguishable theoretically, there is considerable overlap experientially which makes them difficult to distinguish reliably. A short list of the common features between shame and guilt includes that they both involve dysphoric affects like despair, can occur in similar situations, involve internal negative attributions, and can be difficult to resolve (Hastings, Northman & Tangney, 2000; Hendlin, 1996; Lazarus, 1991; Tangney, 1992; Tantam, 1998). This overlap suggested by these authors was, in addition to the mediational findings, born out in the correlational results which revealed that shame and guilt, although supposedly separate constructs within the instrument, were relatively highly correlated with each other as well as with depression. These findings were consistent with similar correlational and clinical findings that indicated that shame and guilt were often intermixed for individuals and coexisted with other affects (e.g., Hastings, Northman & Tangney, 2000; Tantam, 1998). The overlap in this research may have been exacerbated by the use of an affectively based measure of shame and guilt. This measurement issue will be detailed in the discussion regarding Lester’s (1998) research to follow. An implication from these findings and issues was that it suggested that a broader theoretical conception of shame and guilt is necessary that views these two affects as somewhat distinct yet interconnected in practice.
The second point explains the emphasis on guilt over shame via the relative ease of acknowledging guilt versus shame. In contrast to guilt, since shame is invasive and painful toward the self, it may therefore be relatively more difficult or disturbing to acknowledge (Fischer & Tangney, 1995; Lazarus, 1991; Lewis, 1992; Lindsay-Hartz, De Reversa & Mascolo, 1995; Tomkins, 1995). Mokros (1995) observed that in his analysis of suicide notes there was evidence of a difficulty for writers to reveal their own shame. Also, Tangney (1992) found that young adults, while recounting shameful inducing situations, appeared to distance themselves from the experience as evidenced by linguistic changes. In general, it has been suggested that in Western cultures the experience of guilt is more acceptable than shame since it is less aversive and disruptive to the self (Walbott & Scherer, 1995). This avoidance is a distinct possibility since the items of the PFQ-2 concerning shame and guilt are clearly face valid (Harder & Zalma, 1990; Harder, 1992, 1995). This explanation alludes to the possible presence of defensive processes (see Kral & Johnson, 1996; Plutchik, 1995). Contemporary theories of defence view them as psychological processes that serve to help individuals cope with the daily inundation of negative information about themselves (see Benjamin, 1995; Conte & Plutchik, 1995; Kral & Johnson, 1996; Safyer & Hauser, 1995). Given the nature of the painful experience of shame, it would likely be defended against to some degree to avoid acknowledging the experience, its cause, and its consequences (e.g., Dahl, 1995). The positive association of certain types of defensive processes and suicidal behaviour have been previously demonstrated (Apter, Gothelf, Offer, Ratzoni, Orbach, Tyano, & Pfeffer, 1997; Recklywis, Noam & Borst, 1992). Since defensive processes appear theoretically or empirically related to the experience of shame and suicide this may be a valuable aspect to follow up on in future research to further contribute to the understanding of the psychological processes involved in young adult suicidal behaviour. The implication of this discussion is that because of its nature, guilt may have been easier and safer to admit because it was less aversive than shame. Moreover, since shame was ultimately not a predictor of parasuicidal behaviour, the face valid shame items, while being acknowledged to a degree in this study, may have been less readily admitted because
they were self-disturbing, potentially defended against, and therefore somewhat under reported. In addition, culturally the semantic emphasis on guilt over shame in Non-Western cultures may have also helped to reduce the predictive strength between shame and suicide. There is a tendency in many non-Western cultures to emphasize guilt semantically, which has to do with contravening social honour, roles, or status, but phenomenologically merge shame and guilt experiences (Baumeister, Stillwell & Heathrington, 1995; Greenwald & Harder, 1998; Lindisfarne, 1998; Shveder, 1993; Walbott & Scherer, 1995). Since approximately one third of the research sample in this study identified themselves as non-Europeans, this may have added additional bias to the sample with a heightened the emphasis on guilt instead of shame.

The third point adds to the explanations concerning the emphasis on guilt versus shame and concerns the type of motivation for the parasuicidal behaviour of young adults. The motivations reported for parasuicidal behaviour, with an emphasis on academic/work or other difficulties, may not have been particularly shame producing. Lewis (1992) found that one situation likely to engender shame for young adult women and men was failure in interpersonal relationships, particularly romantic ones. As noted previously in the demographic discussion, the presence of admitted relationship problems in general, as well as a primary parasuicidal motivation, was a relative minority in this sample of young adults. The empirical question remains that if there were more shame-producing situations reported in the sample (e.g., relationship problems, Lewis, 1992), would it give shame a stronger statistical presence, enabling its contribution toward depression and suicide be less absorbed by guilt. This outstanding question reveals an important avenue of future research to follow up on using more focussed population samples.

In terms of Lester (1998), there were unexpected results in this research that were in contrast to his correlational findings regarding shame, guilt, and parasuicide. This study found that the association between suicide and shame was not more prominent for men than for women. Similarly, this was found for guilt too. Also, the finding that shame, as well as guilt, was stronger for attempt than ideation, was the opposite to Lester's (1998) finding. Conclusions about the gender differences based on these differing
findings may be premature since Lester's (1998) study was one of the first to report detailed findings regarding gender and shame. The differences regarding shame and suicide across these two studies are likely related to other factors. Most prominent among these factors was the use of different measures of shame and guilt. Lester (1998) used the shame and guilt scales from the Dimensions of Conscience Scale (DSC) reported in Johnson, Danko, Huang, Park, Johnson and Nagoshi (1987). This measure was tailored for cross-cultural research, developed on Asian samples, and contains situation specific items that consist of somewhat different conceptions of shame (e.g., status incongruity; Item 28/Going to a party in casual clothes and finding that everyone is dressed up) and guilt (e.g., violation of interpersonal confidence or trust; Item 6/Always agreeing with your boss because you need the job) than the instrument (PFQ-2) used in this study (cf., Gilbert, 1998; Harder & Zalma, 1990; Harder, 1992, 1995; Hastings, Northman & Tangney 2000; Tangney, 1992; Tangney, Burggraf & Wagner, 1995). The PFQ-2, in contrast, assessed the broad tendency toward feeling shame or guilt via general affective items that were connotative of shame (e.g., Item 21/Feeling disgusting to others) or guilt (e.g., Item 4/Worry about hurting or injuring someone) (Harder & Zalma, 1990; Harder, 1992, 1995). These differences indicate that a straight comparison of findings between this and Lester's (1998) research is problematic.

This discussion reveals several important issues concerning the measurement of shame and guilt. The situation specific measures (e.g., Johnson, et.al., 1987; Tangney, Burggraf & Wagner, 1995) may allow for better phenomenological separation of shame and guilt within the measure itself. Whether this separation would mitigate the presence of mediational relationships between these two variables is an intriguing empirical question for future research. The limitation of the situation specific measure is that the situations employed to represent shame and guilt evoking events are likely to be more culturally sensitive and therefore would have to be carefully adjusted for use with particular groups. A related difficulty of this type of measure is that across individuals many types of situations are interpretatively ambiguous in terms of eliciting shame, guilt, or both (Gilbert, 1998; Tangney, 1992). As yet there appear to be no agreed upon
standards to determine the right eliciting situations. In contrast, the affective specific measure (e.g., Harder & Zalma, 1990; Harder, 1992, 1995) more directly assess affect and is more broadly accessible to respondents in that it is not tied to interpretation of situations. The drawback is that this type of measure has the demonstrated tendency for the two affects to bleed into each other phenomenologically and with other affectively oriented variables like depression. This can obscure other relevant affects. An alternative measurement strategy may be to use non-obvious items. This method is still potentially limited by the same problems as the situational and affectively based measures, in addition to the increased use of interpretation required to decipher the meaning of scores. These measurement issues reveal that, while there are advantages and disadvantages inherent to these forms of measurement, more research is required to sort out the existence of any reliable differences between these affects, as well as the appropriate form of measurement.

Finally, the difference in strength of association of shame with different levels of parasuicidal behaviour found in this study made conceptual sense in terms of suicidological theory and research. The increase of affect, in this case shame, like depression, corresponds to the continuum of increasingly serious and potentially lethal suicidal behaviour that begins with ideation and extends to attempt and completion (Shneidman, 1984, 1994; Vilhjalmssson, Kristjansdottir & Sveinbjarnardottir, 1998). This finding is also consistent with the present theoretical understanding of shame in terms of the unpleasant experiential nature of this affect with its motivational push to escaping the self-aversive experience (Fisher & Tangney, 1995; Lazarus, 1991; Lindsay-Hartz, De Rivera & Mascolo, 1995; Lewis, 1992, 1993; Tomkins, 1995). With an increasing experience of shame there would be a corresponding increase in desire to escape. This increased desire would be reflected in progressively desperate behaviour toward escape like suicide attempts.
ROMANTIC RELATIONSHIP PROBLEMS

In general the empirical findings regarding romantic relationship difficulties were equivocal because, while there were several valuable findings for half of the variables, findings for the other half frequently contrasted with the theoretical expectations concerning young adult development and previous empirical findings (e.g., Arnett, 2000a; Erikson, 1950, 1968; Hawton, Haigh, Simkin, & Fagg, 1995a; Leenaars, 1989; Oosterhoff, 1998). With the third hypothesis it was expected that relationship difficulties would be related to greater shame, interpersonal dependence, and lower self diversity, but only the correlation with self diversity was found to be significant. With regard to the correlational findings in the fourth hypothesis, based on previous research, it was anticipated that parasuicidal behaviour would be associated with relationship difficulties and depression. Depression was strongly associated with parasuicidal behaviour, which was consistent with extensive past suicidological research (e.g., Abramson, Alloy & Hogan 1998; Clark & Goebel-Fabbri, 1999; Davila & Daley, 2000; Riskind, Long, Williams & White, 2000). Relationship problems were also found to be significantly correlated with current parasuicidal behaviour, but unexpectedly not with parasuicidal behaviour over a young adult’s lifetime. Finally, in terms of the regression and first mediational analyses, relationship problems were not found to be a significant predictor of either parasuicidal behaviour or depression despite significant correlations with them. There are several implications from the theoretically supportive findings, and demographic, statistical, and measurement circumstances that account for the unexpected findings.

There were valuable findings regarding self diversity and family dysfunction that were consistent with expectations derived from the theoretical framework regarding romantic relationship difficulties. The findings and issues regarding family dysfunction will be explicated in the subsequent discussion about that variable to follow. In terms of self diversity, that higher relationship intimacy was significantly correlated with greater self diversity lent important support to an aspect of the developmental theory articulated in the literature review. It was theorized that, in the context of problematic family history and interpersonal
dependency, young adults faced with the salient developmental need of establishing romantic relationships may limit the number of valued and successful self dimensions to romantic relationships in order to satisfy the neglected need (Arnett, 2000b; Baumeister, 1991a, 1991c; Dion & Dion, 1988; Hatfield and Rapson, 1999; Williams & Barnes, 1988). Those young adults who reported more relationship difficulties also reported a narrowing of focus in self diversity that was concentrated in the areas of romantic relationships, self worth, and close friendships. The lower self diversity in general coinciding with greater romantic problems also reflects fewer self dimension resources available for coping. A developmental implication from this finding is that it underscores the importance for young adults to broadly develop the self as a strategy to cope with inevitable difficulties in areas in their lives (Campbell, Assanand & Di Paula, 2000; Cohen, Pane & Smith, 1997; Dixon and Baumeister, 1991; Smith & Cohen, 1993).

On balance the correlational and regression findings regarding shame, interpersonal dependence, depression, and parasuicide were not as clearly consistent with theoretical expectations about romantic relationship problems. These connections were hypothesized based on the logical theoretical linkages between the nature of these variables, but two factors concerning romantic relationships interfered with these connections by reducing the presence of romantic difficulties. One factor concerned the reported motivations for parasuicide. Slightly less than a quarter of the sample of young adults reporting parasuicidal behaviour noted relationship problems as the primary motivator for suicidal ideation or attempt. This may reflect relevant socio-demographic trends for young adults. Consistent with the emphasis on academic/work problems as prominent parasuicidal motivations, recent socio-demographic trends indicate that young adults are living with parents longer, delaying marriage, and focussing on education and financial independence in response to economic uncertainty at a societal level (Ahlburg & DiVita, 1997; Arnett, 1997; Beauchais, 2000; Jameson, 1991; Rindfuss, 1991). A second factor, working in tandem with the first, concerned the tendency of young adults toward idealizing their romantic relationships which would bias the distribution within the measure itself. This idealization, argued to exist theoretically (Arnett,
2000b; Baumeister, 1991a, 1991b; Williams & Barnes, 1988) and previously found suggested empirically (Oosterhoff, 1998), was suggested in this research given that approximately 75% of the young adults reported an unrealistically optimum level of intimacy that was relatively constant and problem free. Additionally, even though parasuicidal young adults tended to report more problematic romantic relationships than their non-suicidal peers, they were below the clinical range (Millar & Lefcourt, 1982). Essentially romantic relationships for the sample of young adults as a whole were generally perceived or reported as relatively problem free. The presence of idealization, along with the societal emphasis on love, suggested a related pressure, social desirability, that may also have been working with idealization to interfere with an accurate assessment of romantic relationships (Anastasi, 1988; Gillis, 1988; Kazdin, 1992; Lewis, 1992; Mann, 2001; Shaughnessy & Zechmeister, 1994; Sternberg & Barnes, 1988). The presence of these factors would shift the emphasis away from romantic relationships and minimize any problems thereby reducing its presence statistically. In terms of parasuicide and depression, the correlational evidence suggested a relationship between these variables and romantic problems exists, but the absence of regression and mediational relationships is attributable to these two factors. This discussion highlights a recurring methodological issue concerning accurately assessing the romantic relationships of young adults. Both idealization and social desirability are qualities that would interfere with the realistic evaluation of romantic relationships. It would be valuable in future research to develop methodological approaches that attempt to adjust for this interference. An effective possibility may be a more qualitative interview format that could evaluate the degree of idealization and adeptly bypass it to obtain a more accurate measure of young adult romantic relationships.

Regarding shame and interpersonal dependence, in addition to the two interference factors for romantic problems, there were two previously mentioned factors with these two variables that contributed to the absence of their connection with relationship difficulties. These factors concerned the presence of mediational relationships and the difficulty acknowledging negative information about the self. Shame
appeared to be an affect that would be particularly related to romantic relationship difficulties because it is attuned to failure in personal or socio-cultural standards in relationships due to some perceived inner flaw or inadequacy. It also contains the threat of rejection from those relationships (Gilbert, 1998; Fischer & Tangney, 1995; Lewis 1992). Therefore theoretically, romantic difficulties experienced as failure of a developmentally significant milestone would likely be a highly shame-inducing situation. The most viable explanation for the absence of findings with shame has to do with the mediational relationship between shame and guilt in addition to the issues regarding acknowledging shame. As discussed previously this mediational relationship would obscure the presence of acknowledged shame by being embedded in guilt. Evidence of this was revealed in the significant and substantial correlation of romantic relationship problems with guilt instead of shame. Interpersonal dependence was also a factor that appeared theoretically relevant to relationship difficulties, because as young adults navigate romantic relationships, satisfying those high unmet relational needs would strain their relationships with significant demands for affection and validation (Arnett, 2000b; Hatfield & Rapson, 1999). In addition to the issues regarding the measure of relationship difficulties, the lack of association with it may also have had to do with the measure of interpersonal dependence itself. The absence of a correlation was consistent in that interpersonal dependence was also not correlated with family dysfunction which, like relationship difficulties, was linked conceptually with higher interpersonal dependence (Arnett, 2000b; Hatfield & Rapson, 1999). It was interesting that the absence of association was restricted to the relationship focussed variables (e.g., romantic and family relationships) that were specifically linked conceptually to interpersonal dependence. This suggested that, like shame, interpersonal dependence represents negative information about the self in relationships, whether family or romantic, and may therefore have been difficult to acknowledge especially when faced with direct face-valid statements about it. Therefore it may have been subjected to social desirability and or defensive forces. Yet measurement issues cannot be relied on for a complete explanation for the absence of findings since other significant correlations were found
with many of the other variables including depression, parasuicide, shame, and guilt. An important addition to these explanations was the demonstrated mediational relationship with depression. This mediational relationships likely would have muted the correlation between interpersonal dependence and relationship difficulties.

FAMILY DYSFUNCTION

In general, the empirical findings for family dysfunction were consistently strong and they provided substantial support for this aspect of the theoretical framework in terms of the impact of family problems on young adults. From the literature on self, relationship, and family development, the issues of greater interpersonal dependence, lower self diversity, relationship problems, depression, and parasuicide specified expected aspects of relational and developmental consequences of family dysfunction. With regard to the correlations in the fifth and sixth hypothesis, it was expected that family dysfunction would be related to higher interpersonal dependence, relationship problems, depression, and lower self diversity. Three of these four expected associations were clearly found, with only the correlation with interpersonal dependence being not significant. In terms of the regression analysis, it was very valuable to find that, while it was predicted that family dysfunction was an important predictor amongst others, it stood out as a significant predictor of parasuicide while many of the other variables did not because of mediational relationships.

Finally, augmenting this regression finding, the first mediational analysis, revealed a more complex interrelationship with depression where it was acting as a partial mediator for family dysfunction in predicting parasuicidal behaviour.

The relationship between family dysfunction and lower self diversity provided valuable support for these aspects of the theoretical conception developed in this study. Theoretically, higher interpersonal dependence was seen as a primary associate of family dysfunction and lower self diversity was contingent on it via limiting young adult relational interests to romantic ones (Andrews, Foster, Capaldi & Hops,
2000; Arnett, 2000b; Hatfield & Rapson, 1999 Wallerstein, Lewis & Blakeslee, 2000). This finding, supporting self diversity suggested that, measurement issues aside for interpersonal dependence, self diversity was an important associate of family dysfunction. There is a wealth of family research, particularly for children and adolescents, that demonstrates the range of deleterious outcomes from problematic family functioning (Adams, Overholser & Spirito, 1994; Kienhorst, de Wild, Diekstra & Wolters, 1992; Lewinsohn, Rohde & Seeley, 1994b; Reitman & Gross, 1995). The finding in this study extends such family research to young adults by demonstrating another important aspect of young adult functioning that is connected to family dysfunction. The pattern of correlations of the family sub-scales with low self diversity provide interpretative insight into which dimensions of family problems specifically contribute to this difficulty. All seven sub-scales of the family measure including general functioning, problem solving, affective responsiveness, affective involvement, communication, roles, and behavioural control, were strongly correlated with self diversity. This suggested that the nature of family dysfunction, as related to lower self diversity, is globally problematic, which would likely negatively impact the process of exploration and successful development of various areas of individuals’ lives. In addition, since there is at least an initial temporal order with family dysfunction antecedent to lower self diversity, it is suggestive of a precipitous connection where lower self diversity may be a consequence of family problems as was suggested theoretically. In terms of the effect of family dysfunction on the dimensions of self diversity, examination of the pattern of correlations with the thirteen self diversity sub-scales provided some insight. There were seven self diversity sub-scales that were substantially correlated with family dysfunction as a whole. They included self worth, romantic relationships, close friendships, social acceptance, morality, job competence, and parental relationships. This suggested that these predominantly relational areas of a young adult’s life are affected most by family dysfunction, in contrast to intellectual, scholastic, athletic, humour, or appearance areas. This finding underscores the literature on family functioning that emphasizes it as the crucible where relational patterns are fashioned and persist throughout other relationships (Bowlby, 1980;
Greenberg & Mitchell, 1983; Hatfield & Rapson, 1999; Masterson, 1980; Saarni, 1999; Sroufe, 1995). The impact of family dysfunction would be to reduce an individual's confidence and competence in these relational areas, and consequently their utility as vital components in a diversely constructed self system. Since these findings are correlational, and possess numerous potential intervening variables, these causal implications remain speculative. These inferential suggestions would be valuable to follow up in subsequent research with a longitudinal format following children and adolescents with a range of problematic families to assess the impact on the various dimensions of self diversity.

The replication of previously found connections between family dysfunction with relationship difficulties and depression provided support in confirming a previous finding that family functioning remains important in the lives of young adults despite greater physical and psychological movement away from the family (Oosterhoff, 1998). The pattern of correlations of the family sub-scales with depression and relationship problems also provide understanding which dimensions of family problems specifically contribute to these difficulties. For depression, the majority of the seven family sub-scales were strongly correlated with it including problem solving, affective involvement, communication, roles, and behavioural control. This correlational pattern suggested, similar to the pattern with self diversity, that the family problems reflect a more global and systemic breakdown in the way members function. This pattern was consistent with the mediational understanding of depression as a universal repository of many forms of problems and distress. For relationship problems, the pattern of correlations with the family sub-scales were more circumscribed. The correlations included affective responsiveness, affective involvement, roles, and behavioural control. The specific relational nature of these family dimensions underscored the connection of specific relational family dimensions to the success or failure with romantic relationship intimacy. This pattern focussing on relational areas was consistent with past research that found an impact of family conflict, divorce, and antisocial behaviour on young adult romantic relationships (Andrews, Foster, Capaldi & Hops, 2000; Wallerstein, Lewis & Blakeslee 2000). These findings contributed to
developmental theory and understanding of young adults and families. It provided strong additional empirical evidence that family dysfunction, across a variety of dimensions, remains relevant into the young adult years. While there is a plethora of child and adolescent research on family dysfunction (e.g., Adams, Overholser & Spirito, 1994; Kienhorst, de Wild, Dijkstra & Wolters, 1992; Lewinson, Rohde & Seeley, 1994b; Reitman & Gross, 1995), this evidence advances the small amount of developmental research that implicates the role of familial problems in the difficulties young adults face (e.g., Andrews, Foster, Capaldi & Hops 2000; Wallerstein, Lewis & Blakeslee, 2000).

The absence of a relationship between family dysfunction and interpersonal dependence paralleled the absence of correlation of this variable with relationship problems. As with relationship difficulties, the connection was hypothesized based on the logical theoretical linkages between the nature of family dysfunction and interpersonal dependence. Theoretically the relational consequences of family problems, like greater enmeshment, suggested interpersonal dependence as an associated consequence in young adult development (Andrews, Foster, Capaldi & Hops, 2000; Arnett, 2000b; Dion & Dion, 1988; Hatfield & Rapson, 1999; Wallerstein, Lewis & Blakeslee, 2000). This was supported by normative evidence that revealed that parasuicidal young adults reported interpersonal dependence that was greater than the normative sample and was within the clinical range (Hirschfield et al., 1977). The same explanations previously discussed concerning the absence of findings with relationship difficulties are relevant here including the difficulty acknowledging negative information about the self in relationships and the mediational relationship of both interpersonal dependence and family dysfunction with depression. Despite these explanations, as with relationship difficulties, the absence of clear connections between family problems and interpersonal dependence, is not easily explained. There were no interpretive directions suggested within the family sub-scale correlations with interpersonal dependence since none of the correlations were significant. Ultimately the connection between family dysfunction and interpersonal dependence is likely not a simple one. Family functioning is notoriously complex, and any problem is the
byproduct of many interactions of numerous different dimensions, the consequences of which are then transmuted through its members (Nichols & Schwartz, 1998).

The regression and mediational findings for family dysfunction were valuable because they confirmed that family dysfunction was a prominent variable in the depression and parasuicidal behaviour of young adults. This finding replicated the previous regression finding (Oosterhoff, 1998) and thereby helped to solidify the empirical relevancy of family dysfunction in young adult suicide. In terms of the regression, that family dysfunction did stand out in the strong presence of depression, underscored the importance of it as a powerfully distinct and relevant factor in the parasuicidal behaviour of young adults. The mediational relationship explains this presence by revealing that while there was a complex, and often obscuring interrelationship with depression and the other variables, only part of family dysfunction fed into depression. The implication from this is that there was something unique about the distress of family dysfunction that directly contributes to the parasuicidal behaviour of young adults and does not overlap with depression. This stands in contrast to younger age groups where depression commonly must be statistically controlled to reveal the predictive contribution of family problems (Brent, Perper, Moritz, Liotus, Schweers, Balach & Roth, 1994a; Lewinsohn, Rohde & Seeley, 1994b; Williams & Lyons, 1976) suggesting the mediational relationship for younger ages groups is more substantial. Theoretically, the contribution of family dysfunction toward parasuicide was presented as more of an indirect influence via the effects of antecedent family dysfunction like low self diversity or greater interpersonal dependence. The presence of family dysfunction as a direct predictor may likely reflect the current impact of the deleterious sequeale of that dysfunction in the lives of young adults. Family relationships provide the foundation for diverse functional dimensions, such as communication, intimacy, emotional and behavioural modulation, roles, conflict resolution, self-esteem, confidence, and attachment (Bowlby, 1980; Epstein, Lawrence & Bishop, 1983; Gerson, 1998; Saarni, 1999; Sroufe, 1995). If the familial patterns are problematic enough they will likely not provide adequate skills, coping mechanisms, or relational strategies and thereby hamper
the negotiation of various developmental tasks. Correlational evidence between family dysfunction and parasuicidal behaviour indicated that family functioning across all seven dimensions were problematic for suicidal young adults suggesting a broad and pervasive degree of family difficulties behind a parasuicidal young adult. In sum, these findings suggested that family dysfunction forms an important part of the constellation of difficulty and distress related to parasuicidal behaviour in young adults. This has some important clinical implications. These findings suggest that in the assessment of parasuicidal behaviour, the antecedent, and current patterns of family functioning of young adults should be evaluated carefully, and that treatment should attend to the relevant consequences from those patterns.

CONCLUSION

The limits of considerable epidemiological research on the psychosocial correlates of young adult suicidal behaviour in terms of psychological theory that explains the high incidence and why it occurs have been noted (Cornette, Abramson & Bardone, 2000; Joiner, 2000; Statistics Canada, 2001; Weir & Wallington, 2001). The purpose of this research was to move beyond the generic epidemiological correlates to begin to develop a more focussed theoretical conception of the psychological process of parasuicidal behaviour in young adults. Following from past investigation (Oosterhoff, 1998) that demonstrated problematic romantic and family relationships were related to depression and suicidal behaviour, this current research examined three new relevant variables. These variables, shame, self diversity, and interpersonal dependence, were conceptually linked with the previously investigated variables, but have only been evaluated in terms of young adult suicide in limited ways (e.g., Hastings, Northman & Tangney, 2000; Lester, 1997; Reimer, 1996). Drawing upon the developmental, social, and psychological contexts of young adults it was theorized that the parasuicidal behaviour of young adults was connected to problems in salient romantic relationships with concomitant distress in the form of shame. These relationship problems
are aggravated by connections with interpersonal dependence and low self diversity, that are associated
with family dysfunction. Many of the findings were consistent with the expectations derived from the
theoretical framework and expand the conceptual understanding of the psychological processes involved in
young adult parasuicide.

Demographically the rates of incidence found for the range of suicidal ideation and attempt for
young adults across gender were high, and were particularly high for the non-European ethnic groups
identified in this research. These rates underscored the degree to which suicidal behaviour in young adults
is a pervasive and serious societal problem that should not be ignored (e.g., Diekstra, 1996; Weir &
Waddington, 2001). Motivation for this parasuicidal behaviour came from multiple sources that comprised
a constellation of difficulties spanning developmentally relevant areas of young adult lives. While having
an identifiable primary impetus (i.e., trigger), the parasuicidal behaviour of young adults typically has a
blend of other difficulties in the background that buttress the suicidal distress. Clinically this is important
because it indicates that attention beyond the single motivator, toward an appreciation of the complex
amalgam of motivators is appropriate. This appreciation is valuable because it can reveal the nature and
severity of the distress as well as avenues for ameliorative intervention. Developmentally these
constellations of difficulties were indicative of the degree to which young adulthood is one of the most busy
developmental periods with multiple simultaneous changes spanning every aspect of their lives.

Depression is a substantial mediator for many variables in predicting parasuicidal behaviour which
explains its prominence in suicidological research as a major correlate and predictor. This prominence is
partly artefact because the presence of mediational relationships means that many variables feed into
depression to varying degrees, prior to any direct contribution toward suicidal behaviour. The consequence
of this is that this inflates the statistical presence of depression, while absorbing, and consequently
occluding, the direct involvement of other variables of distress. This mediational relationship exists because
of the phenomenological overlap of distress and dysphoria between other variables and depression which is
behaving as a generic repository or idiom of distress. Shame is a relevant experience of distress in the parasuicidal behaviour of young adults. It is more strongly associated with attempts than ideation suggesting a corresponding increase in affect and distress with more serious suicidal behaviour. This relevancy can be obscured because of the tendency of shame to be hidden by phenomenologically similar affects like guilt and depression via mediational relationships. These mediational relationships are aggravated by the presence of circumstances like the difficulty acknowledging disturbing shame, cultural emphasis on guilt, and the absence of shame-eliciting situations in parasuicidal motivation. These findings make an important contribution to the suicidological literature in that they clarify the complex interrelations among these variables and related circumstances. This clarification improves the understanding about psychological processes involved in young adult suicide and it addresses a lack of research concerning these variables (e.g., Hastings, Northman & Tangney, 2000; Lester, 1997; Reimer, 1996). In addition to the theoretical contribution, these findings are important clinically in that in addition to depression, other affects like shame and guilt are likely present in the parasuicidal behaviour of young adults, although they may be hidden by depression to a degree. The presence of these affects should be evaluated and not ignored because they contribute to the nature of the distress and understanding their contribution provides valuable clues toward intervention.

Romantic difficulties of young adults are connected to their parasuicidal behaviour, depression, family dysfunction, and lower self diversity. Developmentally romantic relationships are salient for young adults but the problems tend to be minimized by processes of idealization and social desirability. The romantic problems that are acknowledged correspond to these serious difficulties. This has important clinical implications in terms of recognizing the prevalence of idealization in young adults and that when the idealization breaks down in the face of significant problems the consequences can be quite severe. Romantic relationship problems correspond to a narrowing of focus in self diversity to the areas of romantic relationships, self worth, and close friendships. Primarily the relational areas of family
dysfunction, such as affective responsiveness, affective involvement, roles, and behavioural control, impact on young adult’s romantic relationships. These findings provide solid empirical support for the theoretical structure by demonstrating these two difficulties are involved in the romantic problems of young adults. The absence of connection of romantic problems with interpersonal dependence and shame was due to these variables mediational relationship with depression and guilt. Also, the predictive relationship likely exists between romantic difficulties and parasuicide, but was diminished by the general absence of reported romantic relationship problems and the relative minority of it as a parasuicidal motivation. Together these findings and explanations are important theoretically because they illustrate the interconnections among conceptually related variables in their relationship with parasuicidal behaviour.

Family dysfunction is a very important aspect in the lives and problems of young adult despite greater physical and psychological movement away from the immediate family. Dysfunction, spanning diverse areas such as problem solving, affective responsiveness, affective involvement, communication, roles, and behavioural control, is associated with problems in romantic relationships, lower self diversity, shame, guilt, and depression. Predictively family dysfunction is a significant contributor to the parasuicidal behaviour both directly and indirectly through a mediational relationship with depression. These findings strengthen the theoretical connection between family dysfunction and the relational, suicidal, and emotional problems of young adults. This advances, beyond the plethora of child and adolescent focussed research, the limited amount of research that implicates the role of family problems in the difficulties young adults face (e.g., Andrews, Foster, Capaldi & Hops 2000; Wallerstein, Lewis & Blakeslee, 2000). This is important clinically because it highlights the continued importance and influence of family dysfunction in the lives and distress of suicidal young adults. Family functioning for young adults is easily overlooked because of developmental emphases on independence and peer relationships. Family dysfunction, through its effects, is very likely integral to the clinical picture of a suicidal young adult and should therefore be carefully evaluated and addressed.
The limitations in this research have been reviewed as they emerged related to the specific findings in the preceding discussion. The limitation that recurred was the central one and will be highlighted briefly to provide a segue into the possibilities for future research. The central limitation concerned the adequacy of questionnaire methods to obtain and accurately reflect complex aggregate information about individuals. This issue was encountered on several occasions in this research specifically with the loss of some specific parasuicide motivation to the catch-all *other* category, difficulties accessing accurate self-assessments of romantic relationships, and the challenges in acknowledging unpleasant self-referential affects like shame or interpersonal dependence. These circumstances point to a potentially effective method to address this issue and several valuable areas to attend to in future research using this method. A qualitative method, such as interviews for example, may be useful to more accurately assess defensiveness and the nuances of parasuicidal motivation, circumvent idealization of romantic relationships, and effectively probe for the presence of unpleasant affect (see Smith, Harre & Langenhove, 1995). Since these difficulties were encountered in the present research, directing future research to these areas via this type of method is important. This research would be valuable help to clarify the degree to which romantic problems and shame are interconnected, and figure in the parasuicidal motivation of young adults, as well as begin to sort out methodologically the most appropriate ways to assess affects like shame and guilt.

Taken together, the findings and this limitation significantly contribute to a more focussed conceptual understanding of the psychological processes involved in the parasuicidal behaviour in young adults. These psychological processes are not reducible to a simplistic theoretical conception because they involve a complex group of interrelated developmental, social, and psychological factors. Young adult suicide is not a unitary entity with regard to motivation, affect, distress, precipitants, or antecedent circumstances. This theoretical complexity is both a boon and a burden. It is a boon in that this complexity can more accurately capture the essential, and somewhat variable, processes in the parasuicidal behaviour of young adults more so than any narrow theoretical view point. This is essential to guide prevention and
intervention in effective directions. Another benefit is that with complexity there is room for the theoretical conceptualization to develop with new ideas and continued research. This complexity is also a burden in that to maintain theoretical and practical viability it demands continual integration of new information.
REFERENCES


Psychology, 51(6), 1173-1182.


Cornette, M. Abramson, L. & Bardone, A. (2000). Toward an integrated theory of suicidal behaviours:


Canadian Journal of Behavioural Science, 29(2), 76-82.


*Suicide science: Expanding the boundaries*. (pp. 9-16). Boston MA: Kluwer.


Assessment, 46, 514-518.


Threatening Behaviour, 30(1), 18-33.


Stoff, D. & Mann, J. (1997). The neurobiology of suicide from the bench to the clinic. Annals of the New
York Academy of Sciences, 836, 1-11.


APPENDIX A
Table 1

Demographics for Reported Parasuicidal Behaviour Over the Last Two Weeks

<table>
<thead>
<tr>
<th></th>
<th>Ideation</th>
<th>Serious Ideation</th>
<th>Attempts</th>
<th>Serious Attempts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported Number (n)</td>
<td>131</td>
<td>63</td>
<td>21</td>
<td>13</td>
</tr>
<tr>
<td>% of Total (N = 327)</td>
<td>40%</td>
<td>19%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>% of Suicide Sample</td>
<td>-</td>
<td>48%</td>
<td>16%</td>
<td>10%</td>
</tr>
<tr>
<td>(n = 131)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2
*Demographics for Reported Parasuicidal Behaviour Over the Young Adult Life Time*

<table>
<thead>
<tr>
<th></th>
<th>Ideation</th>
<th>Serious Ideation</th>
<th>Attempts</th>
<th>Serious Attempts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported Number (n)</td>
<td>193</td>
<td>60</td>
<td>35</td>
<td>28</td>
</tr>
<tr>
<td>% of Total (N = 327)</td>
<td>59%</td>
<td>18%</td>
<td>11%</td>
<td>9%</td>
</tr>
<tr>
<td>% of Suicide Sample (n = 131)</td>
<td>-</td>
<td>31%</td>
<td>18%</td>
<td>15%</td>
</tr>
</tbody>
</table>
Table 3

*Chi Square Analyses of Gender Differences in Suicidal Ideation and Attempt*

<table>
<thead>
<tr>
<th></th>
<th>Male n (%) (Total n = 69)</th>
<th>Female n (%) (Total n = 258)</th>
<th>df</th>
<th>χ²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Suicidal Ideation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two Weeks</td>
<td>33 (48%)</td>
<td>98 (38%)</td>
<td>1</td>
<td>2.37</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Two Weeks/Serious</td>
<td>20 (29%)</td>
<td>43 (17%)</td>
<td>1</td>
<td>1.86</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Life Time</td>
<td>46 (67%)</td>
<td>147 (57%)</td>
<td>1</td>
<td>2.45</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Life Time/Serious</td>
<td>13 (19%)</td>
<td>47 (18%)</td>
<td>1</td>
<td>.001</td>
<td>&gt;.05</td>
</tr>
<tr>
<td><strong>Suicide Attempts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two Weeks</td>
<td>7 (10%)</td>
<td>14 (6%)</td>
<td>1</td>
<td>2.01</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Two Weeks/Serious</td>
<td>4 (6%)</td>
<td>9 (4%)</td>
<td>1</td>
<td>0.76</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Life Time</td>
<td>5 (7%)</td>
<td>30 (12%)</td>
<td>1</td>
<td>1.09</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Life Time/Serious</td>
<td>5 (7%)</td>
<td>23 (9%)</td>
<td>1</td>
<td>0.12</td>
<td>&gt;.05</td>
</tr>
</tbody>
</table>
Table 4

*Demographic Breakdown Along Ethnicity for Reported Suicidal Behaviour*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>European <em>(n = 215)</em></th>
<th>African Am <em>(n = 33)</em></th>
<th>Asian <em>(n = 29)</em></th>
<th>Md.Eastern/W.Asian <em>(n = 32)</em></th>
<th>Other <em>(n = 18)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Two Weeks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicidal Behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ideation</td>
<td>32%</td>
<td>36%</td>
<td>34%</td>
<td>44%</td>
<td>33%</td>
</tr>
<tr>
<td>Attempts</td>
<td>3%</td>
<td>11%</td>
<td>24%</td>
<td>13%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Primary Reasons for Suicidal Behaviour</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Academic</td>
<td>35%</td>
<td>19%</td>
<td>35%</td>
<td>28%</td>
<td>57%</td>
</tr>
<tr>
<td>Other</td>
<td>33%</td>
<td>38%</td>
<td>18%</td>
<td>22%</td>
<td>0%</td>
</tr>
<tr>
<td>Romantic Rel</td>
<td>16%</td>
<td>38%</td>
<td>12%</td>
<td>6%</td>
<td>29%</td>
</tr>
<tr>
<td>Family</td>
<td>12%</td>
<td>5%</td>
<td>35%</td>
<td>44%</td>
<td>14%</td>
</tr>
<tr>
<td>Friend</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Life Time</strong></td>
<td></td>
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<td></td>
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<tr>
<td>Suicidal Behaviour</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Ideation</td>
<td>56%</td>
<td>48%</td>
<td>48%</td>
<td>34%</td>
<td>39%</td>
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<tr>
<td>Attempts</td>
<td>7%</td>
<td>18%</td>
<td>24%</td>
<td>19%</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Primary Reasons for Suicidal Behaviour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>19%</td>
<td>19%</td>
<td>42%</td>
<td>33%</td>
<td>38%</td>
</tr>
<tr>
<td>Other</td>
<td>31%</td>
<td>33%</td>
<td>16%</td>
<td>28%</td>
<td>25%</td>
</tr>
<tr>
<td>Romantic Rel</td>
<td>24%</td>
<td>33%</td>
<td>11%</td>
<td>0%</td>
<td>25%</td>
</tr>
<tr>
<td>Family</td>
<td>18%</td>
<td>15%</td>
<td>26%</td>
<td>39%</td>
<td>12%</td>
</tr>
<tr>
<td>Friend</td>
<td>8%</td>
<td>0%</td>
<td>5%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Table 5

*Percentage Breakdown of Identified Reasons for Parasuicidal Behaviour For The Last Two Weeks*

<table>
<thead>
<tr>
<th>Reason Priority (% of respondents)</th>
<th>Primary (100%)</th>
<th>Secondary (64%)</th>
<th>Tertiary (40%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n = 131)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% Breakdown of Difficulty</th>
<th>32% School/Work</th>
<th>27% Family</th>
<th>31% Friend</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>27% Other</td>
<td>25% School/Work</td>
<td>23% Family</td>
</tr>
<tr>
<td>Type</td>
<td>21% Romantic</td>
<td>24% Romantic</td>
<td>23% Sch/Wk</td>
</tr>
<tr>
<td></td>
<td>18% Family</td>
<td>17% Other</td>
<td>12% Romantic</td>
</tr>
<tr>
<td></td>
<td>2% Friend</td>
<td>7% Friend</td>
<td>11% Other</td>
</tr>
</tbody>
</table>
Table 6

*Percentage Breakdown of Identified Reasons for Parasuicidal Behaviour Over The Young Adult Life*

**Time**

<table>
<thead>
<tr>
<th>Reason Priority(% of respondents)</th>
<th>Primary(100%)</th>
<th>Secondary(66%)</th>
<th>Tertiary(40%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>(n =193)</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

% Breakdown of Difficulty

- 29% Other
- 31% School/Work
- 25% Sch/Wk

- 24% School/Work
- 26% Family
- 22% Friend

Type

- 21% Romantic
- 21% Romantic
- 21 % Family

- 20% Family
- 12% Other
- 16% Romantic

- 6% Friend
- 10% Friend
- 16% Other
Table 7

Reliability Results for the Instruments and Reported Instrument Means, Standard Deviations, and Alphas

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean (SD)</th>
<th>Alpha</th>
<th>Reported Instr. Mean (SD)</th>
<th>Rpt. Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES-D</td>
<td>36.59 (10.98)</td>
<td>.8953</td>
<td>35.22 (11.36)</td>
<td>.85</td>
</tr>
<tr>
<td>HASS-W</td>
<td>4.19 (7.47)</td>
<td>.9322</td>
<td>5.62 (6.64)</td>
<td>.93</td>
</tr>
<tr>
<td>HASS-L</td>
<td>10.34 (14.57)</td>
<td>.9462</td>
<td>9.05 (10.23)</td>
<td>.93</td>
</tr>
<tr>
<td>SIS</td>
<td>69.73 (12.07)</td>
<td>.8571</td>
<td>72.86 (14.02)</td>
<td>.86</td>
</tr>
<tr>
<td>FAD</td>
<td>130.05 (24.43)</td>
<td>.9122</td>
<td>124.72 (11.36)</td>
<td>.82</td>
</tr>
<tr>
<td>PFQ-2</td>
<td>25.25 (7.22)</td>
<td>.7871</td>
<td>25.89 (7.62)</td>
<td>.78</td>
</tr>
<tr>
<td>IDI</td>
<td>45.25 (9.76)</td>
<td>.7775</td>
<td>39.22 (7.80)</td>
<td>.76</td>
</tr>
<tr>
<td>SPPCS</td>
<td>159.96 (25.83)</td>
<td>.9299</td>
<td>166.63 (34.80)</td>
<td>.84</td>
</tr>
</tbody>
</table>

Note:

CES-D = Depression over the last week
HASS-W = Parasuicidal behaviour over last two weeks
HASS-L = Parasuicidal behaviour over the young adult life time (i.e., age 18-25)
SIS = Relational Intimacy
FAD = Family Functioning
PFQ-2 = Shame and Guilt
IDI = Interpersonal Dependence
SPPCS = Self Diversity
Table 8

*t-tests for Form 1 and 2 of the Measures of Depression, Parasuicide, Family Functioning, Intimacy, Shame/Guilt, Interpersonal Dependence, and Self Diversity*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>Standard Dev</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES-D(F1)</td>
<td>36.68</td>
<td>9.98</td>
<td><em>t (325)=-.17</em></td>
</tr>
<tr>
<td>CES-D(F2)</td>
<td>36.47</td>
<td>12.05</td>
<td><em>p&gt;.05</em></td>
</tr>
<tr>
<td>HASS-W(F1)</td>
<td>3.74</td>
<td>6.59</td>
<td><em>t (325)=-1.14</em></td>
</tr>
<tr>
<td>HASS-W(F2)</td>
<td>4.68</td>
<td>8.34</td>
<td><em>p&gt;.05</em></td>
</tr>
<tr>
<td>HASS-L(F1)</td>
<td>10.28</td>
<td>13.13</td>
<td><em>t (325)=-.04</em></td>
</tr>
<tr>
<td>HASS-L(F2)</td>
<td>10.34</td>
<td>16.07</td>
<td><em>p&gt;.05</em></td>
</tr>
<tr>
<td>SIS(F1)</td>
<td>69.39</td>
<td>11.74</td>
<td><em>t (325)=.881</em></td>
</tr>
<tr>
<td>SIS(F2)</td>
<td>69.58</td>
<td>11.25</td>
<td><em>p&gt;.05</em></td>
</tr>
<tr>
<td>FAD(F1)</td>
<td>130.92</td>
<td>23.28</td>
<td><em>t (325)=.69</em></td>
</tr>
<tr>
<td>FAD(F2)</td>
<td>129.06</td>
<td>25.71</td>
<td><em>p&gt;.05</em></td>
</tr>
<tr>
<td>PFQ-2(F1)</td>
<td>24.51</td>
<td>7.13</td>
<td><em>t (325)=-1.60</em></td>
</tr>
<tr>
<td>PFQ-2(F2)</td>
<td>26.09</td>
<td>7.28</td>
<td><em>p&gt;.05</em></td>
</tr>
<tr>
<td>IDI(F1)</td>
<td>44.75</td>
<td>9.74</td>
<td><em>t (325)=0.62</em></td>
</tr>
<tr>
<td>IDI(F2)</td>
<td>45.39</td>
<td>8.94</td>
<td><em>p&gt;.05</em></td>
</tr>
<tr>
<td>SPPCS(F1)</td>
<td>158.20</td>
<td>26.92</td>
<td><em>t (325)=1.32</em></td>
</tr>
<tr>
<td>SPPCS(F2)</td>
<td>161.96</td>
<td>24.46</td>
<td><em>p&gt;.05</em></td>
</tr>
</tbody>
</table>

Note:

(F1) = Alternate form 1 of the questionnaire package  
(F2) = Alternate form 2 of the questionnaire package  
CES-D = Depression over the last week  
HASS-W = Parasuicidal behaviour over the last two weeks  
HASS-L = Parasuicidal behaviour over the young adult life time (i.e., age 18-25)  
SIS = Relational Intimacy  
FAD = Family Functioning  
PFQ-2 = Shame and Guilt  
IDI = Interpersonal Dependence  
SPPCS = Self Diversity
Table 9

Correlations Between Measures of Depression, Parasuicide, Family Functioning, Intimacy, Shame, Guilt, Interpersonal Dependence, and Self Diversity

<table>
<thead>
<tr>
<th></th>
<th>HASS-W</th>
<th>HASS-L</th>
<th>SIS</th>
<th>FAD</th>
<th>PFQ-G</th>
<th>PFQ-S</th>
<th>IDI</th>
<th>SPPCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES-D</td>
<td>5458**</td>
<td>.4571**</td>
<td>-.2319**</td>
<td>.3416**</td>
<td>.3938**</td>
<td>.3764**</td>
<td>.3238**</td>
<td>-.5535**</td>
</tr>
<tr>
<td>HASS-W</td>
<td>.4746**</td>
<td></td>
<td>-.2008**</td>
<td>.3064**</td>
<td>.3176**</td>
<td>.2845**</td>
<td>.2230**</td>
<td>-.3283**</td>
</tr>
<tr>
<td>HASS-L</td>
<td></td>
<td>-.1040ns</td>
<td>.3213**</td>
<td>.3336**</td>
<td>.2105**</td>
<td>.2463**</td>
<td>-.2952**</td>
<td></td>
</tr>
<tr>
<td>SIS</td>
<td></td>
<td></td>
<td>-.2958**</td>
<td>-.2011**</td>
<td>-.1351*</td>
<td>.0282ns</td>
<td>.2996**</td>
<td></td>
</tr>
<tr>
<td>FAD</td>
<td></td>
<td></td>
<td></td>
<td>.2552**</td>
<td>.2135**</td>
<td>.0755ns</td>
<td>-.3524**</td>
<td></td>
</tr>
<tr>
<td>PFQ-G</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5905**</td>
<td>.3369**</td>
<td>-.3738**</td>
<td></td>
</tr>
<tr>
<td>PFQ-S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.3976**</td>
<td>-.4227**</td>
<td></td>
</tr>
<tr>
<td>IDI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.3056**</td>
<td></td>
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</table>

n = 327, *p<.05, **p<.001

Note:
CES-D = Depression over the last week
HASS-W = Parasuicidal behaviour over the last two weeks
HASS-L = Parasuicidal behaviour over the young adult lifetime (i.e., age 18-25)
SIS = Relational Intimacy
FAD = Family Dysfunction
PFQ-G = Guilt
PFQ-S = Shame
IDI = Interpersonal Dependence
SPPCS = Self Diversity
Table 10

Regression Correlations for Current Parasuicidal Behaviour with Depression, Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity

<table>
<thead>
<tr>
<th></th>
<th>HASS-W</th>
<th>SIS</th>
<th>FAD</th>
<th>PFQ-G</th>
<th>PFQ-S</th>
<th>IDI</th>
<th>SPPCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES-D</td>
<td>.5458**</td>
<td>-.2319**</td>
<td>.3416**</td>
<td>-.3938**</td>
<td>-.3764**</td>
<td>-.3238**</td>
<td>-.5535**</td>
</tr>
<tr>
<td>HASS-W</td>
<td>-.2008**</td>
<td>.3064**</td>
<td>.3176**</td>
<td>.2845**</td>
<td>.2230**</td>
<td>.3283**</td>
<td></td>
</tr>
<tr>
<td>SIS</td>
<td>-.2958**</td>
<td>-.2011**</td>
<td>-.1351*</td>
<td>.0282ns</td>
<td>.2996**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAD</td>
<td>.2552**</td>
<td>.2135**</td>
<td>.0755ns</td>
<td>-.3524**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PFQ-G</td>
<td>.5905**</td>
<td>.3369**</td>
<td>-.3738**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PFQ-S</td>
<td>.3976**</td>
<td>-.4227**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>IDI</td>
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<td></td>
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<td></td>
<td></td>
<td>-.3056**</td>
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</tr>
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</table>

*p<.05, **p<.001
Table 11

Multiple Regression for Current Parasuicidal Behaviour with Depression, Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>$SE B$</th>
<th>$\beta$</th>
<th>$t$</th>
<th>Sig $t$</th>
<th>$sr^2$ unique</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES-D</td>
<td>.2674</td>
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<td>.4530</td>
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<td>.1161</td>
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<td>.0245*</td>
<td>.0107</td>
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<td>PFQ-G</td>
<td>.1430</td>
<td>.1105</td>
<td>.0769</td>
<td>1.293</td>
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<td>.0035</td>
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<td>PFQ-S</td>
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<td>.0856</td>
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<td>0.534</td>
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<td>-.0499</td>
<td>-0.997</td>
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<td>.0021</td>
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<td>.0362</td>
<td>.0376</td>
<td>0.718</td>
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<tr>
<td>SPPCS</td>
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<td>.0148</td>
<td>.0244</td>
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</table>

Multiple $R$         .5717
$R^2$               .3268
Adjusted $R^2$      .3121
Standard Error      5.377

*p<.05, **p<.001
Table 12

*Regression Correlations for Life Time Parasuicidal Behaviour with Depression, Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity*

<table>
<thead>
<tr>
<th></th>
<th>HASS-L</th>
<th>SIS</th>
<th>FAD</th>
<th>PFQ-G</th>
<th>PFQ-S</th>
<th>IDI</th>
<th>SPPCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES-D</td>
<td>.4574**</td>
<td>-.2319**</td>
<td>.3416**</td>
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<td>-.3764**</td>
<td>-.3238**</td>
<td>-.5535**</td>
</tr>
<tr>
<td>HASS-L</td>
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<td>-.1040ns</td>
<td>.3213**</td>
<td>.3336**</td>
<td>.2105**</td>
<td>.2463**</td>
<td>-.2952**</td>
</tr>
<tr>
<td>SIS</td>
<td></td>
<td></td>
<td>-.2958**</td>
<td>-.2011**</td>
<td>-.1351*</td>
<td>.0282ns</td>
<td>.2996**</td>
</tr>
<tr>
<td>FAD</td>
<td></td>
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<td>.2552**</td>
<td>.2135**</td>
<td>.0755ns</td>
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<td>PFQ-G</td>
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<td>.5905**</td>
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<td></td>
<td>.3976**</td>
<td>-.4227**</td>
</tr>
<tr>
<td>IDI</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>-.3056**</td>
</tr>
</tbody>
</table>

*p<.05, **p<.001*
Table 13

*Multiple Regression for Life Time Parasuicidal Behaviour with Depression, Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>$SE B$</th>
<th>$\beta$</th>
<th>$t$</th>
<th>Sig $t$</th>
<th>$sr^2$ unique</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES-D</td>
<td>.3867</td>
<td>.0697</td>
<td>.3330</td>
<td>5.54</td>
<td>.0000**</td>
<td>.0698</td>
</tr>
<tr>
<td>FAD</td>
<td>.0970</td>
<td>.0278</td>
<td>.1858</td>
<td>3.48</td>
<td>.0006**</td>
<td>.0276</td>
</tr>
<tr>
<td>PFQ-G</td>
<td>.6935</td>
<td>.2257</td>
<td>.1896</td>
<td>3.07</td>
<td>.0023*</td>
<td>.0214</td>
</tr>
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<td>.1748</td>
<td>-.1018</td>
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<td>.1068</td>
<td>.0059</td>
</tr>
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<td>.0576</td>
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<td>1.01</td>
<td>.3116</td>
<td>.0023</td>
</tr>
<tr>
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<td>.0741</td>
<td>.0966</td>
<td>1.77</td>
<td>.0766</td>
<td>.0072</td>
</tr>
<tr>
<td>SPPCS</td>
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<td>.0303</td>
<td>-.0095</td>
<td>-0.15</td>
<td>.8771</td>
<td>.0005</td>
</tr>
</tbody>
</table>

Multiple $R$ .5243  
$R^2$ .2748  
Adjusted $R^2$ .2590  
Standard Error 10.978

* $p<.01$, ** $p<.001$
### Table 14

*Mediational Regression (Step 1) Correlations for Current Parasuicidal Behaviour with Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity*

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*p<.05, **p<.01, ***p<.001*
Table 15

Mediational Regression (Step 1) for Current Parasuicidal Behaviour with Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity without Depression

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Multiple $R$  .4445  
$R^2$        .1975  
Adjusted $R^2$ .1825  
Standard Error 5.86

*p<.05, **p<.01
Table 16

Mediational Regression (Step 1) Correlations for Life Time Parasuicidal Behaviour with Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity

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*p<.05, **p<.01, ***p<.001
Table 17

Mediational Regression (Step 1) for Life Time Parasuicidal Behaviour with Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity without Depression

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Multiple $R$  .4527  
$R^2$         .2049  
Adjusted $R^2$ .1900  
Standard Error 11.47

*p<.05, **p<.01, ***p<.001
Table 18

Mediational Regression (Step 2) Correlations for Depression with Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity.

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*p<.05, **p<.01, ***p<.001
Table 19

Mediation Regression (Step 2) for Depression with Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity

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Adjusted $R^2$.3581
Standard Error 8.80

* $p<.05$, ** $p<.01$, *** $p<.001$
Table 20

Mediation Regression (Step 3) Assessing the Contribution of Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self-Diversity beyond Depression to Current Parasuicidal Behaviour

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*p<.05, **p<.01, ***p<.001
### Table 21

**Mediation Regression (Step 3) Assessing the Contribution of Family Dysfunction, Relationship Intimacy, Guilt, Shame, Interpersonal Dependence, and Self Diversity beyond Depression to Lifetime Parasuicidal Behaviour**

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*$p<.05$, **$p<.01$, ***$p<.001$
Table 22

*Mediational Regression (Step 1) for Shame predicting Depression without Guilt*

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***$p<.001$***
Table 23

*Mediational Regression (Step 2) for Shame predicting Guilt*

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***$p<.001$
Table 24

Mediational Regression (Step 3) Assessing the Contribution of Shame beyond Guilt to Depression

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***$p<.001$
VITA AUCTORIS

Michael E. A. Oosterhoff completed an Interdisciplinary Bachelor of Arts degree in 1993 and subsequently a second Bachelor of Arts degree in psychology in 1996 at the University of Western Ontario. Enrolled in the doctoral program in Adult Clinical Psychology in 1996, he completed a Master of Arts Degree in Clinical Psychology in 1998 at the University of Windsor. He completed his Doctorate in Clinical Psychology at the University of Windsor in 2003 and is completing his clinical Internship at the London Health Sciences Centre.