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RELATIONSHIP OF MENTAL WELL-BEING AND RELIGIOUS COMMITMENT IN ADOLESCENCE

by

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "Relationship of Mental Well-Being and Religious Commitment in Adolescence", submitted by Joan Duckett in partial fulfillment of the requirements for the degree of Master of Science.

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ABSTRACT

The purpose of the present study was to explore the relationship of religious commitment and mental well-being in adolescence. Additional research questions addressed by the study included the usefulness of the Ego Strength Scale of the Minnesota Multiphasic Personality Inventory - 2 as a measure of adolescent mental health, the relationship of gender and religiosity, the association of perceived parental practice and adolescent religious practice, and the possible relationship of locus of control and religious orientation.

A sample of 172 adolescents (102 females, 70 males) was drawn from urban Roman Catholic high schools. They were administered the following self-report instruments: the Religious Orientation Scale (ROS), a measure of intrinsic religiosity; the General Health Questionnaire (GHQ), a measure of psychological dysfunction; the Ego Strength Scale (Es); and a Questionnaire developed by the researcher to determine regularity of religious practices, perceived parental practice, presence of risk factors, and locus of control.

Results of three statistical analyses failed to find an association between religious commitment, as measured by the ROS, and mental well-being, as measured by the GHQ. A significant correlation was found, however, between the Es Scale and the GHQ, $r = -.55$, $p < .001$, although the magnitude of the relationship was

not large enough to recommend substitution of one test for the other in diagnostic work with adolescents. No gender differences in reported religiosity were found in the present study. But highly significant correlations were found between adolescent religious practices and the perceived practices of their parents, particularly for church attendance, $r = .80$, $p < .001$. Internal locus of control was found to be significantly related to intrinsic religiosity only when attributing failure to lack of effort. Limitations of the study, as well as implications for preventive programming, and for future research were discussed.

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And now to God be the glory, whose power working in us can do infinitely more than we can ask or imagine (Ephesians 3: 20).

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CHAPTER ONE

INTRODUCTION

When a group of Lethbridge teens committed suicide in the spring of 1990 and their deaths were linked to Satanic worship, parents and young people alike reacted with fear and bewilderment. Pastors, law enforcement personnel, cult specialists and psychologists made public addresses to provide information and advice. Mental health professionals in Calgary were put on the alert should the number of teens involved in suicide pacts become too numerous for local counsellors to handle. Herein lies a community mental health problem with religious overtones and affecting individual adolescents. It is an example of the most serious mental health problem facing today's teens, one that creates within all of us an uneasy feeling that somehow our world has gone awry. As psychologists, we look first to the individual in an attempt to understand the problem, aware that each unique person is the result of an interaction of inherited and environmental factors.

Gordon Allport (1968), a well known psychologist, defined genuinely human life as

> ... at best a short span of years compressed between two oblivions, spent chiefly in wonderment, and terminated in mystery. To be human implies moments of delight and glimpses of happiness; but also it implies ordeals of suffering, discord of purposes, frequent defeat of self, and painful reconquest of self. A mentally ill person is one who, at least temporarily, has lost the battle. He regrets his past, abhors his present, and dreads his future. If we ourselves have not gone over this brink, we have been close enough to it to sympathize with those who have. (pp.141-142)

To rise victorious or better still, to prevent the battle of which Allport speaks from occurring, we must first identify the source of the discord - a source located within each individual. Since even before the time of the Greek scholar, Plato, humankind has been viewed as consisting of various parts. Many believe that the key to subjective health is in achieving a balance between these parts. Plato and his followers spoke of the appetitive, the spiritual/creative, and the reason of humanity. The early Christian writings of Paul distinquished the psyche of humankind (the natural life in its authenticity as this is given by God and received from Him) from the pneuma (the eternal spiritual side of the self) (Vande Kemp, 1982, p.107). And as did the Greek philosophers, Paul emphasized the importance of one aspect of our being achieving mastery over those aspects comprising our lower nature, revealed in the impulses and appetites associated with the body. For Paul, health resulted when pneuma gained dominance over the sinful impulses of psyche.

By the early sixteenth century, the term psychology, from the Greek "psyche", meaning soul, was understood to mean "science of the soul". This sense of the term was still alive in the nineteenth century, when Fechner founded the science of psychophysics as part of his enterprise to prove that the soul and the body were one (Vande Kemp, 1982). But also in the nineteenth century, "Biblical psychology" distinguished pneuma (the rational and immortal soul) from psyche (the animal, the sensitive, and affectional spirit), seeing human nature as a trichotomy comprising body, soul, and spirit (Vande Kemp, 1982).

In the exploration of personality, too, Freud expounded his view of human nature as consisting of three aspects. The superego, one of Freud's aspects of humanity, is often expressed as religion or religious conscience (Freud, 1927/1955).

Today in our contemporary western society the understanding of the person as a combination of characteristics, however labelled, remains strong. It is that aspect variously described through the ages as spiritual/creative, pneuma, spirit, and superego, which our modern western world has deemed to be the "religious" part of our being and hence a very personal, untamperable aspect. For this reason, there is much controversy over the inclusion of "religion" in the educating of young people. However, recent research into risk factors associated with adolescent mental health problems, particularly suicide, suggests that **all** aspects of an adolescent's person, both inherent and environmental, interact to produce the resultant problem (Bagley & Ramsay, 1985; Blumenthal & Kupfer, 1988). Indeed, as a result of her compilation of the research on suicidal behaviour, Susan Blumenthal (1988) suggests that the factors which contribute to suicidal potential are already known. What remains to be determined she says, is the level and degree to which each factor contributes. If this is indeed the case, then the "religious" dimension of human development must be examined in order to identify the source of individual mental distress, to prevent further mental anguish, and to promote mental health. For, as Gordon Allport (1968), stated, "an understanding of mental health requires both the poetic and

prophetic metaphors of religion and the precise, hard grammar of science" (p.142).

Looking again at the initial example of teen suicide in Lethbridge, the importance of attempting to understand both the scientific and the religious implications of mental health, as Allport suggests, is evident. The empirically based knowledge of suicidal behaviour as well as the examination of spiritual beliefs and practices are both necessary in addressing the problems at an individual and a community level. Advocates of community psychology, however, would go a step further. They would not only meet the present critical needs, but also recommend a process of primary prevention, i.e., the instigation of a method to reduce the risk for mental health problems before they occur (Forgays, 1983). This approach would involve program development aimed at the general community in order to promote mental health either by decreasing the potential effects of risk factors and/or by enhancing those factors positively associated with well-being. The difficulty with this preventive approach, however, is that the factors associated with mental health and conversely, with mental illness or mental health problems, must be identified.

National Health and Welfare has adopted this preventive outlook in an attempt to grapple with the issue of mental health. The 1988 document, **Mental Health for Canadians: Striking a Balance**, defines mental health as "the capacity of the individual, the group and the environment to interact with one another in ways that promote subjective well-being, the optimal

development and use of mental abilities (cognitive, affective and relational), the achievement of individual and collective goals consistent with justice and the attainment and preservation of conditions of fundamental equality" (p.7). This definition and the subsequent implications and challenges it proposes for Canadian people was inspired by the World Health Organization's definition of health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". The idea that health or "well-being" is much more than just the absence of illness encourages the development of positive health programming. It suggests preventing problems, such as teen suicide, by identifying those factors that prevent or protect society and the individual from growing or becoming "ill".

The framework for mental health promotion proposed by National Health and Welfare (1988) is built around three challenges. The first challenge, reducing inequities, involves a knowledge of the distribution, causes and risk factors associated with common mental health problems as well as the knowledge of the nature and causes of good mental health so that inequities can be eliminated and people's empowerment can grow. The second challenge, increasing prevention, emphasizes the importance of research to generate new knowledge about mental health and then the coordination and application of this knowledge to develop programs which correct or avoid the causal or contributing processes of mental disorders. The third challenge, enhancing coping, targets the importance of interdisciplinary action and

action to bring about the necessary environmental changes to enhance people's capacity to cope both individually and collectively.

In a similar vein, Mental Health Services in Alberta (1988) produced a paper the same year with the express purpose of outlining policy direction "to guide program development" (p.1). The "integration of the principles of prevention and promotion of mental health at all levels in the continuum of care" (p.9), is one of the seven major issues purported to affect the future of mental health services. This issue addresses the belief that primary prevention may result in "a corresponding decrease in the incidence and severity of mental health disorders, especially when targeted at high risk groups" (p.15), one such group being the adolescent age group.

Thus we see increasing emphasis away from tertiary care of the mentally ill and toward the development of preventive programming. As well, there is increasing importance placed on research directed at the identification of factors which will promote mental health both on an individual basis as well as at a community level. The field appears ripe for the proponents of community psychology to advocate the development of primary prevention programs aimed at the total community. Incorporated into this process must be the establishment of methods which will encourage the "healthy " religious growth of our young people.

Purpose of the Study

Mental health and the prevention of mental health problems, particularly in high risk groups, are societal concerns. A group usually identified as high-risk is the adolescent age group. The extensive amount of literature written on adolescents who are at high-risk for mental health problems, primarily suicide, identifies many of the factors which produce or intensify these problems (Bagley, 1989; Bagley & Ramsay, 1985; Blumenthal, 1988; Brent, Perper, Goldstein, Kelko, Allan, Allman, & Zelenak, 1988; Huffine, 1989; Peck, 1987; Pettifor, Perry, Plowman, & Pitcher, 1983) but few actually consider "protective factors" per se; i.e., those factors which prevent mental health problems (Blumenthal & Kupfer, 1988). If mental health professionals are to meet the challenge of prevention put forth both provincially and nationally, it is necessary to examine and enhance what may be termed "protective factors". For it may not be necessary to understand the etiology of an illness or a mental health problem to prevent it, if instead those factors which increase risk, or conversely, promote health, can be identified. To this end, research into the identification of these factors may contribute to the establishment of effective mental health programming. The purpose of this study, therefore, was to explore the relationship between religious commitment and mental well-being in adolescence. If a significant relationship was found, the possibility exists that religious commitment may be identified as a **protective** factor in the mental well-being of adolescents.

CHAPTER TWO

LITERATURE REVIEW

In order to develop a preventive focus for mental health, it is necessary to examine the "healthy". Only by examining those who are not experiencing mental distress can factors be identified which differentiate them from the group who are distressed. Only by studying teens in general is it possible to determine whether indeed, religious commitment is a protective factor. And once information is gleaned about "healthy" teens, the differences between them and those suffering from mental health problems can be explored in terms of positive, i.e., protective, and negative, i.e., risk factors. The literature review, therefore, will include a section on adolescent beliefs and practices as well as the mental health problem of adolescent suicide, suicide and religion, and religion and mental health.

Adolescent Beliefs and Practices

In 1985 Bibby and Posterski undertook a survey to examine the attitudes, beliefs, outlooks, expectations, and behaviours of teens in Canada. Conducted out of the University of Lethbridge during four months in 1984, Project Teen Canada surveyed 3,600 teens between the ages of 15 and 19 years from 152 schools randomly selected from the five regions of Canada (B.C., Prairies, Ontario, Quebec, Atlantic). A 15-page questionnaire was administered to each subject by school guidance counsellors. The questionnaires containing more than 300 items and requiring

approximately 35 minutes in total to complete were administered during May, June, September, and October of 1984.

One of the areas tapped by the survey was religious attitudes and beliefs of Canandian youth. When asked to describe their religious self-image, 39% of the teens questioned described themselves as "committed" to their religion. In terms of religious beliefs, Bibby and Posterski (1985) found that 85% of teens believe in the existence of God, 80% believe in life after death, but only 23% attend church regularly, 20% pray privately on a regular basis, and a small 5% engage often in reading the scriptures. Almost 50% of the young people surveyed never read the Bible. The number of those who attend church "very often" decreases from 25% for 15 year olds, to 23% for 17 year olds to 15% for 19 year olds. Although only 20% of the teens stated that they frequently pray in private, almost 30% more claim to pray sometimes, while the remaining 50% of teens seldom (3 in 10) or never (2 in 10) pray.

An analysis of beliefs and practices by region, religious affiliation, and gender revealed only minor variations within the population. This included a difference in the rate of regular church attendance - 28% for Catholics and 26% for Protestants; a difference in regular Bible reading - 11% for Protestants and 2% for Catholics; and a gender difference in that females showed a slight tendency to exceed male proportions on every belief and practice measure, both conventional and otherwise.

Posterski and Bibby (1988) also conducted a comprehensive survey for The Canadian Youth Foundation. Between October 26 and

December 22, 1987, 2,033 interviews were conducted of 15 to 24 year olds from across Canada. Their findings indicate that friendship is the goal valued highest by youth, ranked by 83% of the subjects as very important. This is followed by the goal of "being loved" which is ranked as very important by 77%. The most highly valued means to achieve these goals is honesty, viewed by 84% as very important. In seeking moral guidance, 62% look to their parents - 39% to their mothers and 23% to their fathers. Although only 14% of the 15 to 19 year olds highly value religion, 84% believe in the existence of God, and a high 92% identify with organized religion. The authors observed that Canadian young people are interested in the supernatural but that for the majority of young people, values and ethical codes are no longer being transmitted through religious institutions. Posterski and Bibby therefore question how values **are** being transmitted from one generation to the next and how young people can be enabled to establish convictions and ethics in today's complex society.

In another study, Silber and Reilly (1985) examined the spiritual and religious needs of hospitalized adolescents. They found that in the 114 respondents ranging in age from 11 to 19 years, 15% requested spiritual help. The vast majority believed in God although only half of them were involved in religious practices. An analysis of variance also revealed that the more seriously ill adolescents had the greatest spiritual and/or religious concerns, independent of the effect of sex, race, religion, and school.

A fourth study by Hannah and Morrissey (1987) used average teens to analyze the relationship of religion to "psychological hardiness". Subjects were 317 high school students enrolled in grades 7 to 12 and ranging in age from 12 to 18, chosen from both the Protestant and the Roman Catholic school boards in St.John's, Newfoundland. Psychological hardiness was measured by a 20-item scale that examines three variables: commitment to school and self, control, and challenge. A multiple regression analysis using the five variables, happiness, sex, grade, age and religion, identified religion as a significant variable in both the overall regression equation and the religion -> sex -> happiness -> hardiness exploratory path analysis. The authors concluded that "the influence of religion on the development of psychological hardiness would appear to be worthy of further study." (p.344).

Today's teens, then, believe in the existence of God, feel influenced by religion, and are desirous of spiritual teaching. Many view themselves as committed to their religion but few spend time engaging in religious practices. They strive to attain friendship and love but no longer acquire through religious institutions the knowledge of basic morals and values necessary to gain and retain affection. Perhaps as a result, they are a population group at high risk for mental health problems. The adolescent suicide rate continues to rise. Family disruption, depression, and societal stresses are deemed as factors increasing the risk of suicidal behaviour (Bagley, 1989). Could

it be that the young people in our modern western world are searching for that aspect of their being that is the religious spirit inherent in humanity, but they do not know where or how to find and keep it? In our modern world where 40 to 50% of children will spend part of their childhood in single-parent families and where almost 42% of mothers of pre-schoolers work outside the home (Santrock, 1988), are parents available to teach religion or even to ensure that religion is taught? Familial assistance may be difficult to attain and specific religious or spiritual training is denied, for the most part, within the school system. Is it possible then that the development of a child's "spirit" is being entirely neglected? And if this is indeed the case, what are the implications of this neglect on the developing child and on society in general?

I propose that this neglect, this under-development of the human spirit is resulting in the move of the western world away from mental well-being and towards, instead, a society rampant with hopelessness, purposelessness, and despair. The National Health and Welfare discussion paper (1988) defines adolescent suicide as a mental health problem. That is to say, adolescents at high-risk for suicide are not necessarily mentally ill but they are experiencing the effects of negative influences on their mental health. According to Bagley and Ramsay (1985), who completed a thorough review of research progress and priorities in the study of suicidal behaviour, the problem of rising rates of suicidal behaviour in Canadian young people is particularly disturbing and therefore warrants a major thrust in terms of both

prevention and research activitiy. Prevention implies the identification of "protective factors". One such factor may be religion or religious commitment. But the teens of today are being deprived of that protective factor - deprived of a factor capable of reducing the effects of risk factors and at the same time promoting positive coping skills necessary to handle the daily stressors of this modern western world.

The Mental Health Problem of Adolescent Suicide

The mental well-being of today's young people has become a pressing issue, particularly as the increasing suicide rate takes on the character of an epidemic posing serious public health problems (Bagley, 1989). While youth suicide rates declined slightly in the 1980's, they remain high, particularly in the U.S., Canada, and Australia (Huffine, 1989). Among young people 15 to 19 years of age, suicide is the second leading cause of death, next to accidents, which may in all probability be acts of deliberate self-harm (Bagley & Ramsay, 1985; Blumenthal, 1988; Cooper, 1988; Nelson, 1988). Suicidal rates in the U.S. have tripled over the last thirty years, plateaued since 1980 and now are one of the highest rates in the world at 12.3 per 100,000 population (Blumenthal, 1988). Canada and Australia are the only two countries that have experienced a similar pattern of increase (Huffine, 1989). In 1983 in Canada, the incidence of suicide in males age 15 to 19 years was five times greater than in 1965 (Suicide in Cananda, 1987). Indeed, according to the Minister of

National Health and Welfare, the suicide rate for young men aged 15 to 19 has quadrupled in the last 20 years (CASP News, 1990).

In Alberta, statistics from 1951 to 1977 show the second highest suicide rate by province, after B.C., with a steadily rising rate for young people between 15 and 24 years of age. As in the U.S. and the rest of Canada, youth suicides in Alberta rank as the second cause of death, after accidents (Hellon & Solomon, 1980). In 1976, the suicide rate in 15 to 19 year old Albertans was 20.0 per 100,000 (Hellon & Solomon, 1980). Ten years later, in 1986, that rate peaked at 24.4 per 100,000 and has remained at 19.1 per 100,000 for 1987 and 1988 (Office of the Medical Examiner, 1989). The overwhelming majority of completed suicides are males, with a ratio of 3.6 males to 1 female (Hellon & Solomon, 1980).

Work begun in Alberta and replicated in many countries attributes this increasing rate of suicide to the cohort phenomenon (Solomon & Hellon, 1980). What this means is that the suicide rates for successive birth cohorts are higher than the preceding cohorts. The group first identified by this phenomenon was the "baby boomers" of the 50's. They were the adolescents and young people of the 70's when a great increase in youth suicide rates was first noted (Huffine, 1989). The cohort theory predicts that this pattern will continue and produce increased future rates in middle-aged and then elderly suicides (Huffine, 1989). Similar cohort effects have been demonstrated in the rest of Canada, the U.S., Australia, England and Wales, the Federal Republic of Germany, and Switzerland (Newman & Dyck, 1988).

However, Newman and Dyck (1988) questioned this research. Using suicide rates for males in Canada between 1930 and 1982, they demonstrated that by examining only portions of data, as would be done for a cohort analysis, there is the risk of missing certain trends. They recommend that three graphic approaches to data be examined: suicide rates by age group, time period, and birth cohort.

Trovato (1988) also reanalyzed the Canadian statistics on suicide between 1921 and 1985. As Newman and Dyck (1988), he separated the age, period, and cohort effects, but he also included four other variables - gender, a measure of religious secularization, an urbanization variable, and an index of the extent of divorce in Canada during the 60 years from 1921-1925 and 1981-1985. Trovato found that the phenonmenon of suicide is largely an age-specific one (R^2age =.78), particularly among males. Trovato concludes that overall, suicide has been increasing since 1921, but cohort effects have very little explanatory relevance - they contributed only .068 variance to the overall R^2 of.989 in a multiple regression analysis. Trovato also reported that religious secularization correlates with the rate of suicide but it did not exhibit in his study a statistically significant influence.

These researchers, then, have found that the risk of suicide depends on the age and sex of the individual (Newman & Dyck, 1988; Trovato, 1988) but what are some of the other variables that may contribute to suicidal behaviour? The extensive amount of literature in the area of suicide, especially adolescent

suicide, has identified many of the common risk factors. These include the general categories of risk factors outlined by Bagley and Ramsay (1985):

1) vulnerability
2) mental state
3) modelling, opportunity and social approval
4) social stress

As well as Blumenthal's categories (1988):

1) psychiatric disorder
2) personality traits
3) psychosocial factors, social supports, life events, and chronic medical illness
4) family history and genetics
5) neurochemical and biochemical variables

And finally, Huffine's (1989) sociological factorial breakdown:

1) social structures which may support and protect individuals or produce stress
2) culture as well as social structure which influences the psychological development of its members
3) attitudes about suicide and death produced by a culture

Other specific factors identified by researchers include psychiatric diagnoses (Brent et al., 1988; Cooper, 1988; Pettifor et al., 1983; Pfeffer, Newcorn, Kaplan, Mizruchi, & Plutchik, 1989; Rutter, Graham, Chadwick & Yule, 1976), alcohol and/or substance abuse (Pfeffer et al., 1989), interpersonal conflict (Brent et al., 1988), hopelessness (Beck, Steer, Kovacs, & Garrison, 1985; Cole, 1988), peer pressures (Cooper, 1988;

Pfeffer et al., 1989), family discord and broken homes (Bagley, 1989; Cooper, 1988; Den Houter, 1981; Hellon & Solomon, 1980; Pettifor et al., 1983; Pfeffer et al., 1989), poor problem-solving skills in stressful situations (Nelson, 1988; Peck, 1987), exposure to suicidal behaviour (Den Houter, 1981; Pettifor et al., 1983) especially through the media (Phillips & Carstensen, 1986), number and timing of stressful events in childhood (Berman & Cohen-Sandler, 1980), parental pressures to succeed and parental rejection (Cooper, 1988; Hellon & Solomon, 1980; Nelson, 1988; Peck, 1987) and child abuse and/or neglect (Cooper, 1988; Pfeffer et al., 1989).

Much less is known, however, about factors which may actually prevent suicide from occurring. Chum, Patsiokas, and Luscomb (1979) have labelled those factors which may deter self-destruction, "mediating factors". They identify the adolescent's behaviour repertoire, his/her ability to conceptualize alternatives to life problems, cognitive styles and influential role models as mediating variables. The predisposition to and precipitation of suicide is then expressed as a "developmental path analysis" of factors.

Blumenthal and Kupfer (1988) identify four categories of factors associated with suicidal behaviour:

1) predisposing factors - those present at or soon after birth and often genetically based
2) risk factors - as previously discussed
3) precipitating factors - those events which act as a trigger for suicidal behaviour. They include sudden alienation from

parents in the absence of other emotionally supportive human relationships; real or imaginary rejection by a peer of either sex whose relationship has been highly valued; a significant failure, usually athletic or academic, which involves public exposure; and/or major family disruption or dissolution, especially if the adolescent feels that he/she is the reason for the disruption (Suicide in Canada, 1987). When this trigger is accompanied by access to a lethal method (Bagley & Ramsay, 1985; Blumenthal, 1988; Brent et al., 1988), substance or alcohol abuse (Blumenthal, 1988; Brent et al., 1988; Suicide in Canada, 1987), social isolation and a long-standing history of the use of maladaptive coping mechanisms, the trigger is even more powerful (Suicide in Canada, 1987).

4) protective factors - those which prevent the suicidal action.

In their Threshold Model for Suicidal Behaviour, Blumenthal & Kupfer (1988) suggest that certain predisposing factors such as family history of suicide and biological vulnerability, interact with risk factors developed later in life.

> When a person with these risk factors undergoes a humiliating life experience and when there is an available method for suicide, the threshold for suicidal behaviour may be lowered. However, the presence of certain protective factors, including cognitive flexibility, hopefulness, good social supports, and receiving appropriate treatment for an associated psychiatric disorder, contribute to maintaining a barrier to suicidal behaviour, helping to explain why some people become suicidal in certain conditions and others do not. (Blumenthal, 1988, p.961)

Another risk model is described by Keogh (1990) and incorporates two groups of variables - child and ecocultural. The ecocultural context consists of 12 variables that identify

family and cultural environment. The child variables measure cognitive, psychosocial adjustment, and educational achievement. Each variable can be thought of as continuous, experienced in terms of maximum risk to maximum protection. The algebraic sum of these weighted factor variables describes what Keogh calls a Compensatory or Weighted Risk Model.

In summary, adolescent suicide may be understood as the epitomy of the teen mental health problem - a problem western society is now researching extensively in an effort to reduce and, optimistically, prevent. Although much has been done to identify the risk factors associated with adolescent suicide, very little has yet been presented in the way of actual preventive measures. The models of Blumenthal and Kupfer (1988) and Keogh (1990) are useful in providing a framework within which to build a knowledge base, but more beneficial would be definitive data on preventive program development. The identification of specific protective factors could assist in a primary prevention program. By reducing the impact of risk factors and promoting the development of the identified protective factors within the individual and within his or her environment, the fit between the two could be greatly improved. Risk of adolescent suicide would thereby be reduced. The question is whether religious commitment **can** be identified as a mediating factor as Chum et al. (1979) label it or a protective factor as in Blumenthal and Kupfer's (1988) terms, for adolescent mental health.

Suicide and Religion

The relationship between religion and the mental health problem of suicide is one which has been researched to some extent particularly in the last few years although primarily with adults. For example, Stack (1983a, 1983b, 1983c, 1985) has written a number of articles comparing religion and suicide, utilizing various labels and measures for religion. The religious book production index (Stack, 1983a, 1983b) is one such measure. Using data collected from 25 nations for the year 1970, Stack compared the number of religious books produced as a percentage of all books produced and the suicide rate per 100,000 as obtained from the World Health Organization. Although a multiple regression analysis showed that religious book production and total suicide rate were not significantly related, a further analysis of age-specific and sex-specific suicide showed that the religious book production index was significantly related to suicide in the 25-44 year old female cohorts. Stack concluded that religious commitment, regardless of denominational affiliation and intranational denominational diversity, does reduce many rates of suicide.

Stack (1983c, 1985) went on to examine data in the United States alone, comparing suicide rates from 1954 to 1978 with church attendance, a measure of what he termed, "institutionalized religion". Suicide rates were computed for nine age and gender specific groups to assess variations in the religion-suicide relationship. One age grouping was young adults - ages 15 to 29 years. Stack found that church attendance

dropped dramatically in this group, from a high of 48% in 1958 to a low of 28% in 1973 and correspondingly, the negative association between church attendance and suicide was found to be strongest for this age group. Another term, "religious individualism" was measured by Stack as church absence, and was found to be highly correlated to suicide ($r=.82$, $p<.05$). When an elasticity coefficient was calculated for the 15 to 29 year age cohort, though, it was determined that a 1% increase in church attendance was associated with a 1.4% decrease in suicide.

Utilizing data produced in many of the same years, Martin (1984) examined the results of the Roper Public Opinion Survey conducted in 1972, 1974, 1977 and 1978 in the United States. Each person in the representative sample of 1,500 was queried as to his/her frequency of church attendance. The calculated mean attendance was then compared with the suicide rates per 100,000 population for each corresponding year. Martin found a significant negative correlation between church attendance and suicide rates and concluded that, "the results of the present study therefore, provide support for the idea that religiosity deters suicide." (p.1169) Holmes (1985), however, refuted this statement by citing two significant problems. The first is the fact that Martin (1984) used group data to draw conclusions about individual cases. The second problem is the fact that correlation does not imply causality.

The difficulty in determining the association between religion and suicide appears to be in the measurement of constructs, both in the interpretation of those measurements, as

Holmes (1985) points out and also in the validity of the measures themselves. Durkheim, as cited in Huffine (1989), understood religion to be a key mechanism for social integration, a variable he saw as a protective factor. Huffine herself states that there is no good evidence of a current association between the level of religiosity and the risk of suicide among individuals, but there is evidence that religious involvement is associated with low rates of acceptance of suicide, i.e., attitudes toward suicide which are less accepting. This conservative attitude toward suicide is in itself an identified protective factor.

Stark, Doyle, and Rushing (1983) wished to refute Durkheim's notion of religious commitment as only a means of providing social integration. They examined the impact of religion on suicide by comparing church memberships and rates of suicides in Standard Metropolitan Statistical Areas (SMSAs) between 1960 and 1970. Although church membership varied greatly across SMSAs - from 966 church members per 1,000 population down to 250 per 1,000, the correlation obtained for the 214 SMSAs analyzed was negative and highly significant. By defining social integration in terms of social networks, i.e.,"the greater the density and intensity of interpersonal attachments among members of a group, the more the group can be said to be socially integrated" (p.127), the authors controlled for it by examining population turnover in each SMSA. The correlation between church membership and suicide remained robust and highly significant. The authors therefore stated that the data "reveal a strong religious effect on suicide independent of social integration" (p.129).

If religion does have an effect on suicidal behaviour as these researchers and others suggest, it may indeed warrant further investigation as a potential protective factor. Bagley and Ramsay (1985) recommend in their list of research priorities that, at both a provincial and national level, attitudes to suicide, and the role of social factors such as religion in such attitudes, and the potential role of religious participation in protecting people from suicidal behaviour be investigated.

Bagley and Ramsay (1988) followed up their own research suggestion by exploring the links between religious values and attitudes, personal mental health, and attitudes toward suicide and suicidal behaviour. Their findings are based on data from a community survey in Calgary which randomly accessed 679 adult subjects. They found that people with a strong current religious commitment tend not to have experienced suicidal ideas in the past year and that the frequency of church attendance and being a "born-again Christian" (inter-linked variables) are both associated with an absence of suicidal ideas. The researchers remark that "it is significant that a number of people in our survey who have a history of suicidal behaviours have solved these existential problems by religious commitment which involves active association in a church community" (p.14). Bagley and Ramsay also comment on the significant but often small correlations of the suicidal sub-group of youth, 18 to 25 years years of age. They state that, though this group of young people is wealthier and more materialistic than the older generations, it is also less religious, less happy, has poorer mental health,

is more accepting of suicide, and is more prone to deliberate self-harm and attempted suicide in the face of stress.

Religion and Mental Health

Research has been examined which links religion with the serious mental health problem of suicide, but what of religion's association with mental well-being? The importance of developing the human spirit, its connection with religious practices, and the relationship of religion and mental health, is a highly contested area in current psychotherapy. In response to an article by Bergin (1980) entitled, "Psychotherapy and Religious Values", in which Bergin contrasts theistic and clinical-humanistic values as they pertain to personality and change, Albert Ellis (1980) states that "Religiosity is in many respects equivalent to irrational thinking and emotional disturbance... The elegant therapeutic solution to emotional problems is to be quite unreligious... the less religious they are, the more emotionally healthy they will be" (p.637). This view was expressed similarly by Ellis again in 1987 when he contended that religiosity both theistic and secular, is antithetical to high-level emotional functioning. However, as Sharkey and Malony (1986 & 1987) point out, Ellis defines religiosity as a pathological condition characterized by "devout or rigid belief ... [and] ... dogmatic absolutistic conviction" (Ellis, 1987). After comparing persons from Ellis' own clinic, Sharkey and Malony (1986) found no significant differences between the mental

health of clients who described themselves as very religious, atheist, and religiously neutral.

Herein lies the basis of much of the controversy over the role of religion in mental health - two opposing factions defining religiosity in two very different ways creating, as Bergin (1980) suggests, "an artificial battle in which one side purports to win and the other to lose, rather than learning from one another" (p.101). An attempt, therefore, will be made to examine studies that have variously defined both religion and mental health and to explore the interaction of these two variables.

Much of the conflicting research findings in the area of mental health and religion are due to definitional problems. The interpretation of research results is always dependent upon the authors' definitions and the measuring tools utilized, but this interpretation is even more the case when comparing a concept as all-encompassing as mental health and one as misunderstood as religion. Instruments used in various studies to measure mental health may either focus on positive aspects (eg., life satisfaction scales) or seek instead to diagnose mental illness (eg., depression or anxiety indices). Similarly, religion and religious commitment can be defined by indicators including prayer (Markides, 1983), self-rated religiosity (Levin & Markides, 1986; Markides, 1983; Reynolds & Nelson, 1981; St. George & McNamara, 1984; Witter, Stock, Okun, & Haring, 1985), belief in an after life (Petersen & Roy, 1985; Steinitz, 1980), religious orientation (Allport & Ross, 1967; Bergin,

Masters, & Richards, 1987; Bergin, Stinchfield, Gaskin, Masters, & Sullivan, 1988; McClain, 1978), and church attendance (Markides,1983; Petersen & Roy, 1985; St. George & McNamara, 1984; Steinitz, 1980; Witter et al., 1985). Much of the recent research emphasizes "well-being", the positive aspect of mental health and utilizes church attendance as a measure of religiosity.

For example, Steinitz (1980) examined well-being in the elderly and used six measures:

1) self-reported happiness
2) self-reported health
3) acknowledgement of life as exciting, pretty routine, or dull
4) satisfaction with place of residence
5) satisfaction with family life
6) satisfaction with health and physical condition

Frequency of church attendance was obtained from the National Opinion Research Centre's General Social Survey (1972-1977), but Steinitz employed in total, four religiosity variables - frequency of church attendance, strength of affiliation, belief in life after death, and confidence in organized religion. In a sample of 1,493 people, 65 years of age or more, Steinitz found church attendance to be the only variable that yielded significant associations with all six of her measures of "well-being". However, when she explored her data further, Steinitz concluded that church attendance appears to be more an "activity" than "religiosity" among the aged as the association between

well-being and religiosity is significant in those individuals who report fair/poor health; i.e., the relationship is affected by the physical health of the individuals.

In another study with an elderly population, Markides (1983) interviewed 510 Mexican-Americans and Anglos residing in San Antonio, Texas who were 60 years of age or older. Of these, 338 were interviewed again 4 years later. The indicators of religiosity he used were church attendance, self-rated religiosity, and practice of private prayer. The Life Satisfaction Index was an indicator of what he termed "positive adjustment" in aging. Results of a number of regression analyses indicated that the greater the church attendance, self-rated religiosity, and practice of private prayer, the higher the life satisfaction. But only church attendance was significantly correlated with positive adjustment in aging for both racial groups and for both time frames. However, Markides suggests as does Steinitz (1980), that church attendance may be a better indicator of one's ability to be active than his or her religious commitment.

In 1983, Bergin evaluated the relationship between religiosity and mental health by examining 24 pertinent studies, 20 of which used university students as subjects and only one of which employed adolescents (Smith, Weigert, & Thomas, 1979). Bergin expressed concern that studies of religiosity had been limited by scientific designs that "defined religious phenomena in such a way as to axiomatically preempt the possibility of healthy religion" (p.172). Utilizing Glass, McGaw and Smith's

method of meta-analysis, Bergin analyzed studies that had at least one religiosity measure and at least one clinical pathology measure. His computer and manual search for all works up to 1979 identified only 24 usable empirical studies. Although most of the research results were not statistically significant, 47% indicated a trend toward a positive relationship. The author concludes that the findings provide only marginal support for a positive effect of religion as the number of usable studies is small and the studies' results are "bland".

St. George and McNamara (1984) used the data pooled from the 1972-1982 General Social Survey to examine "psychological well-being" and religiosity of whites and non-whites aged 25-54 years. They measured psychological well-being along eight variables: global happiness, excitement in life, subjective health; and satisfaction with each of community, nonwork activities, family life, friendships, and health. The variables they used to measure religiosity were frequency of church attendance and strength of religious affiliation. The two questions asked were: "How often do you attend religious services?" and "Would you call yourself strongly religious or not very strongly religious?". Multiple regression analyses were performed entering first control variables of age, education, income, and occupational prestige and then the religiosity measure of either church attendance or strength of affiliation. Although the Beta weights were no greater than .15, statistical significance was found with positive relationships between religiosity and global happiness, excitement in life, and satisfaction with: friendships and health

for white men and women. Church attendance for white men surpassed the strength of religious affiliation in predicting global happiness, subjective health, and satisfaction with each of community, family life, friendships, and health. With white women, church attendance was best in predicting global happiness, and satisfaction with both community and family life. However, the overall relationships determined by means of a multiple regression analysis were what the authors defined as "bland". St. George and McNamara concluded that this was due at least in part to the way religiosity was operationally defined. They suggest that it is essential to measure the "degree of engagement of individuals' beliefs with the way they look at life and feel about it" (p.361).

In 1985 Witter, Stock, Okun, and Haring published the results of a meta-analysis utilizing 28 studies dated from 1930 to 1979 from which they extracted 56 religion/subjective well-being effect sizes. In operationalizing "subjective well-being", however, they excluded measures of specific domains of life (e.g., job), mental health, and adjustment. Instead, they utilized global measures of quality of life and well-being as well as specific scales which purported to measure happiness, life satisfaction, and morale. Religion was defined in two ways: one, as a frequency count of attendance at religious services; and two, as a simple question or probe relating to religious importance, religious mindedness, or interest in religion. Witter et al. found religion to be positively associated with perceptions of well-being, accounting for between 2 and 6 per

cent of the variance in adult subjective well-being. As well, they found the relationship to be stronger in "older" rather than "younger" subjects. Further, effect sizes did not differ between all male and all female samples. The type of religious measure used produced significantly different effect sizes with the estimates being higher when the measure was religious activity rather than religiosity. The researchers again suggest, however, that the importance of church attendance may be enhanced by a lack of social integration which in turn may increase religious sentiment. They therefore recommend that "future research should examine the relation among religious participation, religiosity, and subjective well-being using a latent variable approach in which each construct is operationalized using multiple indicators " (p.338).

Levin and Markides (1986) chose to examine religious attendance and "subjective health" in three generations of Mexican Americans residing in San Antonio during 1981-1982. A total of 1125 people were interviewed, 375 in each generation - aged 65-80 years, their children, and their grandchildren who were 18+ years of age. Frequency of religious attendance was the independent variable in this study while the dependent variable, subjective health, was measured by asking subjects to rate their health as "excellent", "good", "fair", or "poor". Subjective religiosity was controlled for by asking respondents to rate themselves as to "How religious would you say you are?". Although the researchers found that religious attendance was significantly related to subjective health in both older and

younger women, religious attendance and subjective religiosity were correlated in both sexes and in all age groups. Using a regression analyses to partial out some of the control variables, it was found, as in the other studies, that religious attendance among the older people may be positively associated with physical capacity. Once again the need for an additional measure of religiosity is indicated.

An international study (Butt & Beiser, 1987) surveying human values and well-being over the adult life span utilized four indices - satisfaction with job relations, satisfaction with human relations, satisfaction with material needs, and religiosity. The religiosity scale tapped the respondent's belief and reliance on religious commandments and belief in God, the soul, and life after death. Four age divisions were made - 18 to 24 years, 25 to 34 years, 35 to 49 years, and 50 years of age and over - to yield a distribution of numbers across categories. Raw scores were standardized separately for each nation and results from the 13 nations of which Canada was one, were compared. A consistent finding was the greater religious belief in those people over 50 years of age. They also obtained high satisfaction scores on human relations and material needs. However, the group between 18 and 24 years of age scored low on religiosity as well as scoring low on satisfaction with human relations and material needs.

Chamberlain and Zika (1988) chose to define "well-being" in terms of three dimensions: life satisfaction, positive affect, and negative affect. Religiosity was assessed by sub-scales

developed by King and Hunt purported to measure "meaningfulness in life as attained through religion" (p.414). In this longitudinal study of 188 women, the researchers examined the relationship of religiosity to these three components of well-being by having the women fill out questionnaires at the beginning of the study and then three months later. They found a small but significant relationship between religiosity and life satisfaction. The two major conclusions drawn from the study were that the relation between religiosity and subjective well-being, where it does occur, is positive but small, and that this relationship is variable, depending upon the assessment of the constructs.

All studies discussed thus far utilized measures of life satisfaction, quality of life, when examining mental health. Reynolds and Nelson (1981), however, attempted to record attitudes toward living and behaviour as the psychological variables in their exploration of the demographic, medical, and psychological variables related to survival of chronically ill seniors in an institution. Of the 193 patients analyzed, the researchers determined that those who were dead 12 months after the interview tended to be somewhat younger, indicated less religious commitment, showed higher levels of confusion, and had somewhat poorer prognoses. In psychological testing, these patients had indicated less satisfaction with life and rated somewhat higher on a measure of direct suicidal potential.

A study by Petersen and Roy (1985), examined the consequences of religion for psychological well-being stating

that "it is quite possible that certain dimensions of religiosity may be more relevant to certain types of well-being than are others" (p.50). The dimensions of psychological well-being they chose to examine, therefore, were meaning and purpose (i.e., the extent to which an individual perceives that he/she leads a worthwhile, goal-oriented, or meaningful existence) and anxiety. From a sample of 450 names drawn at random from the city of Memphis phone directory, 318 completed interviews were analyzed. Religiosity measures were religious salience (i.e., extent to which an individual bases important decisions on religious faith and the importance of religion in life and in providing meaning for life), religious comfort beliefs (turning to God in pain and suffering and belief in His ultimate control), orthodoxy (four biblical truths), other-worldly/this-worldly orientation, and church attendance. Consistent with the authors' hypotheses, they found that religious salience has a strong positive effect and is a better predictor of meaning and purpose in life than any other variable included in the analysis.

Although Petersen and Roy (1985) speak of "religious salience", the bulk of these studies utilize frequency of church attendance as a measure of religious commitment. Most contend that they have misgivings about its validity and suggest that more or better measures be employed in future studies. Gordon Allport was extremely interested in the role of religion in human psychological development (**The Individual and His Religion**, 1959). In 1967, he and Michael Ross published a paper describing what he termed "personal religious orientations" and prejudice.

They devised a scale, the Religious Orientation Scale (ROS), which has since been used in nearly 70 publications and is now one of the most frequently used measures of religiosity (Donahue, 1985). With the scale, Allport (1967) distinguishes between intrinsic and extrinsic religion stating that extrinsic religion is something to use, but not to live. Persons with an intrinsic orientation "find their master motive in religion"; "they are, insofar as possible, brought into harmony with their religious beliefs and prescriptions" (Allport, 1968, p.243); they **live** their religion. Persons with an extrinsic orientation use religion for their own ends. Theirs is a religion of comfort and social convention, a self-serving instrumental approach shaped to suit oneself (Donahue, 1985a). An attempt has been made to create a fourfold typology out of the ROS: those high on intrinsic items and low on extrinsic, called **intrinsics**; those low on intrinsic and high on extrinsic, called **extrinsics**; those high on both, the **indiscriminately pro-religious**; and those low on both, the **nonreligious**. To date, the research using this procedure is somewhat sparse, and analytical approaches have been inconsistent (Donahue, 1985b). The two polar measures of intrinsic and extrinsic religiosity on the ROS, however, may indeed come close to measuring the engagement of an individual's beliefs with the way they look at life and feel about it (St.George & McNamara, 1984) and religious salience (Petersen & Roy, 1985).

McClain (1978) administered Allport's ROS to 278 college students who were preparing for work in the helping professions.

Of these students, 145 were classified as intrinsically religious and 133 as nonreligious. Mental well-being was explored in terms of personality differences between the two groups. Scores on the Eysenck Personality Inventory (EPI), the California Personality Inventory (CPI), and the 16 PF Questionnaire were used. McClain found that those students who were intrinsically religious scored significantly higher on factors labelled "Self-Control" and "Stereotyped Femininity" - suggesting to him that the intrinsic group had greater control over their primitive impulses out of regard for something or someone other than themselves. This seemed to McClain to represent the ethical and socializing impact of religious commitment. The same group of intrinsically religious students also scored significantly higher on the factor labelled "Personal and Social Adequacy" suggesting higher levels of personal integration or fulfillment.

Watson, Morris, and Hood (1988) in Part 2 of a five-part series on Sin and Self-Functioning, used the ROS as a religiosity measure and defined "psychological adjustment" in terms of anxiety and neurosis. They sampled 221 students at a southeastern state university using measures of emotionality (Pittsburg Emotionality Scale), anxiety and depression (Costello & Comrey Anxiety & Depression Scales), neuroticism (Eysenck Neuroticism Scale) and self-consciousness (Fenigstein et al. self-consciousness measures). A weak connection was found between an intrinsic religious orientation and diminished neuroticism. As well, a negative relationship was found between depression and intrinsicness. A second study by the same authors

(1988) expanded the analysis of psychological constructs to include hopelessness (Beck Hopelessness Scale), irrational beliefs (Irrational Beliefs Questionnaire), locus of control (Locus of Control Scale), and general and social self-efficacy (General and Social Self-Efficacy Scale). With a sample size of 125 students (average age 19.8 years), associations were found between intrinsicness and general and social self-efficacy and internal locus of control. The relationship of intrinsicness with less hopelessness as well as less depression was also evident.

Part 4 of the series on Sin and Self-Functioning (Watson et al., 1989) examined the consequences of religious commitment on mental health variables of depression and assertiveness. Undergraduate students, 120 females and 92 males were presented with a questionnaire booklet containing scales to measure empathy, depression, religious orientation, and sin. The researchers found a positive correlation between intrinsicness and emotional empathy. They also found that all 14 items on the depression scale (Costello & Comrey Depression Scale) were inconsistent with religious beliefs. In their words, this "strengthens the claim that religion can foster ideological commitments with positive psychological consequences" (p.52).

In another study by Watson, Hood, Foster, and Morris (1988), 314 students, 198 from a state university and 116 from a Pentecostal college, were administered the same measure of religiosity, the ROS, along with 3 measures of personality - the Narcissistic Personality Inventory, the Depression-30 Scale and

the Depression Scale of Costello and Comrey. The examiners found that intrinsic religious orientation was correlated with less depression and less narcissistic exploitiveness. Extrinsicness tended to be related to both variables in the opposite direction. Another interesting finding of the study was that the students from the religious college tended to be less depressed and less exploitive than the students from the state university.

Bergin, Masters, and Richards (1987) explored the issue of religion and mental health further with a predominantly intrinsically religious population. Once again using the ROS, the researchers correlated extrinsic and intrinsic religious orientations with anxiety (Taylor Manifest Anxiety Scale), personality traits (CPI), self-control (Rosenbaum's Self-Control Schedule), irrational beliefs (Ellis' Irrational Beliefs Test), and depression (Beck Depression Index). The sample was drawn from students attending a religious college, and of the 151 students tested, 98.6% were "intrinsics". When their personality scores were compared with population norms, trends favouring the intrinsics were observed. The authors concluded that, although the data did not reveal strong relations, the mean scores on personality measures and correlations of those measures with the ROS provided moderate evidence that religious intrinsicness is positively associated with personal adjustment.

A further study by Bergin, Stinchfield, Gaskin, Masters, and Sullivan (1988) also found that the overall psychological adjustment of their intrinsic sample group of 60 college students was normal. The mean values on all reported measures (MMPI, EPI,

CPI, and Tennessee Self-Concept Scale) were well within normal limits, and some tended toward above-average levels. According to the researchers, this supports other findings and "runs counter to the notion that religiousness is necessarily correlated negatively with mental health" (p.97) as Ellis (1987) purports.

All these studies examine the potential protective factor of religious commitment but employ various measures. The most commonly used instrument, however, is the ROS developed by Allport and Ross (1967) and purported to be a good measure of religious commitment (Donahue, 1985a). The two studies by Bergin et al. (1987 & 1988), have utilized the ROS with a very specific group of intrinsically religious young adults. Their studies define mental health in terms of personality test scores. Other researchers define it in terms of life satisfaction indices (Butt & Beiser, 1987; Markides, 1983; St.George & McNamara, 1984; Steinitz, 1980), meaning and purpose in life (Petersen & Roy, 1985) and a number of pathological indices such as anxiety (Petersen & Roy, 1985; Watson et al., 1988), suicidal potential (Reynolds & Nelson, 1981) and depression, narcissistic exploitiveness, emotionality, hopelessness, self-consciousness, irrational beliefs and self-efficacy (Watson et al., 1988). Each of the studies cited examines specific aspects of mental well-being but none have attempted a correlation of religion with a global measure of psychological fitness defined in terms of the absence of psychiatric problems, or as one's ability to cope

efficiently and effectively with the daily stressors of life. Neither do any of the studies examine religious commitment in teens using Allport's measure of intrinsic religiosity and drawing from the general population.

Summary

Taken together, the above literature review shows that although adolescents believe in God and many profess to be committed to their religion, very few engage in religious practices. They appear to lack the knowledge of how to seek and engage in healthy spiritual development. It is proposed that this may be a partial reason for the increasing problem of adolescent suicide.

Although much is known of those factors contributing to suicidal potential, little research is available regarding preventive factors. Chum et al. (1979) speak of "mediating variables" such as effective behaviour repertoire, problem-solving and conceptual abilities, and appropriate influential role models. Blumenthal and Kupfer (1988) identify "protective factors" such as cognitive flexibility, hopefulness, and good social support. These are all end products of a successful developmental process. But what encourages the development of these factors? What is the primary preventive process that nurtures these protective mechanisms? Is it possible that religious commitment is a part of this positive process?

Research suggests that a link exists between religious commitment and reduced risk of suicidal behaviour but this

research is primarily with adults. When Bagley and Ramsay (1988) examined religion and suicide, they found that today's youth are less religious, less happy, have poorer mental health, and are at a greater risk for suicide than previous generations. Other studies that have specifically explored religion and mental health in young people, have concentrated primarily on those who "live their faith" (Allport, 1968). Although the results suggest trends for above average mental well-being in the intrinsically religious, it is difficult to know how these results apply to the general population. How intrinsically religious are our young people? And is there a relationship between the degree of their religious commitment and their mental health?

The present study was undertaken, therefore, as an exploratory study to address the issue of this relationship between religious commitment and mental well-being in adolescents. As the Religious Orientation Scale is the most frequently used instrument to determine religious commitment and has been administered to teens in the past, (Spilka, Stout, Minton, & Sizemore, 1977; Stewin, 1976; Stewin & Anderson, 1974; Thompson, 1974), it appears to be the most appropriate measure to use in the present study. Mental well-being will be defined as an assessment of the individual's "here and now" situation and how that situation differs from previous states (Goldberg, 1972). This particular defintion of mental health is consistent with the notion of prevention and protective factors in that the quality of the interaction of risk factors with an individual's protective mechanisms is what determines the state of subjective

well-being. In the words of Michael Rutter (1987), "protection ... resides not in the evasion of the risk, but in the successful engagement with it" (p.318). If religious commitment, then, is a protective factor, it should be evident as a characteristic present in those adolescents who currently perceive themselves as mentally healthy, even though they may be presently or have in the past, been in contact with life events considered to be risk factors.

The instrument developed by David Goldberg (1978) to measure an individual's perceived present state of well-being as it differs from previous states is known as the General Health Questionnaire. It, too, is appropriate for use with adolescents. Another scale, the Ego Strength Scale of the Minnesota Multiphasic Personality Inventory - 2 (Hathaway & McKinley, 1989) also provides a measure of a similar concept, that of effective psychological coping, i.e., an individual's mental well-being in the present situational context. However, the Ego Strength Scale has not been normed for adolescents.

Utilizing these measures of mental well-being as well as the ROS for religious commitment, the present study will attempt to fill in the gaps left by previous research by addressing the relationship of these two variables in the general adolescent population. The research will also attempt to determine the presence of risk factors within individual teens and explore their interaction with the religious commitment and mental well-being relationship.

Several other questions will be considered as well in the context of the present study. One will be that of gender differences and degree of religiosity. As discussed earlier, there is a predominance of males in the adolescent suicide statistics. It would be interesting to determine whether an opposite gender trend is evident in religiosity levels. Another question explored will be the role of parental modelling behaviour in the development of their adolescents' religious practices. And one final question will consider the correspondence between individual locus of control and intrinsic or extrinsic religious orientation.

The stage of human development known as adolescence is one many parents dread, particularly when situations such as the Lethbridge teen suicides arise too close to home. What are the mechanisms which can protect our teens from potential risk? What can enhance these protective processes? And is religious commitment one such enhancer? If a positive relationship can be shown to exist between religious commitment and mental well-being, the possibility exists that religiosity may indeed be a protective factor for today's adolescents.

As we ponder these questions, let us also consider the words of Gordon Allport written 40 years ago but still relevant today:

> Might young people, brought up in the symbolism and faith of psychoanalysis, when confronted by life's perplexities, find the less familiar but more heroic expressions of the world's great religions fresh and insightful, and more germane to the totality of their experience? If therapy for minds in distress requires a reorientation of perspective, it may well turn out that the historic religious conceptions of good and evil have a special merit for modern minds caught in the web of psychological terminology. (p.84)

Research Questions

The two questions central to this research project are as follows:

1) Is there a positive relationship between an intrinsic religious orientation and psychological well-being in adolescents?

   and

2) Does this association remain constant even in the presence of certain "risk factors"?

In addition to these two fundamental questions, the following questions are also of interest:

3) Does the Ego-Strength Scale of the Minnesota Multiphasic Personality Inventory - 2 (MMPI-2) correlate well with the General Health Questionnaire and thereby suggest the validity of the Ego-Strength Scale as a measure of adolescent mental well-being?

4) Is there a gender difference in the average level of religiosity?

5) Is there a relationship between an adolescent's religious practices and those of his/her parent(s)?

6) Is locus of control related to religious orientation?

CHAPTER THREE

METHODOLOGY

Pilot Study

A pilot study was undertaken to detect any problems there might be in the proposed research procedure and/or materials. On Friday, June 8th, 1990 a sample of 12 students from the Frank Maddock High School in Drayton Valley, Alberta were administered the test package either during their lunch break or at various periods throughout the afternoon. Doughnuts and coffee or juice were made available to all those who participated.

As a result of the pilot study, the following concerns were resolved:

1) the appropriate wording for the introduction by the researcher to the test session was finalized
2) the ease with which the questionnaires could be completed by high school students was confirmed
3) the amount of time required to complete the test package was ascertained.

Subjects

Subjects for the study proper were 172 Grades 11 and 12 students (102 females, 70 males) ranging in age from 15 years to 19 years 8 months from three Calgary Roman Catholic high schools: Bishop Grandin, Father Lacombe, and St. Francis High School. The subjects for this study were drawn from the Calgary Catholic School system as the implications of the research would be of more interest to a system where religious education is an integral part of the curriculum. The reason for the selection of

an urban high school population from which to draw a representative sample of Canadian teens was due to the fact that 50% of Canada's youth, 15 to 24 years of age, live in communities with populations of 100,000 or more and 75% of Canadian young people 15 to 19 years of age are still in school (Posterski & Bibby, 1988).

As Religious Studies is a mandatory class for all high school students in the Catholic School system, it was recommended by the Assistant Superintendent of Student Services to all school principals that the present study would be most appropriately administered in this class. The explanatory letters and consent forms, therefore, were distributed by Religious Studies teachers in the three schools that agreed to participate.

Introductory letters and consent forms were given to 364 students. A total of 198 students (54%) agreed to participate. Of those students, 20 were absent on the day of testing and 6 test packages were incomplete, so that the actual number of subjects for analysis was 172 (47%). The response rates differed from school to school with the percentage of students who completed the test materials as follows:

47 out of 78 (60%) at St. Francis High School

94 out of 133 (71%) at Father Lacombe High School

31 out of 153 (20%) at Bishop Grandin High School

When queried, teachers indicated that non-participants did not differ in age or gender from those who chose to take part in the study. The main reason given for non-participation was that students simply forgot to take home or return the consent form

(more than 50 students indicated this as a reason). Other reasons included concern with possible content (more than five students), disinterest (more than three students), parental refusal (two), concern with anonymity (more than one), length (one), and medical reasons (one).

Measures

The Religious Orientation Scale (ROS): The ROS, developed by Allport and Ross (1967), purports to provide a reliable measure of both extrinsic and intrinsic tendencies in a person's religious life. Donahue (1985b) states that it is perhaps the most frequently-used measure of religiousness aside from church attendance. He goes on to describe intrinsic orientation as a "good, unidimensional, nondoctrinal indicant of religious commitment, while E (extrinsicness) seems to measure the sort of religion tht gives religion a bad name: prejudiced, dogmatic, fearful" (p. 422). The ROS itself is a self-report instrument consisting of 20 items, 9 of which are intrinsically worded and thus make up the intrinsic scale. The other half of the ROS, the extrinsic scale, is made up of 11 items. The items were randomly assigned for the present study so that questions for both the intrinsic and extrinsic scales are interspersed. Scores of 4 or 5 on any one item indicate extrinsic orientation, while scores of 1 or 2 indicate intrinsic orientation. Omissions receive a score of 3.

Reliability of the ROS was examined by Donahue (1985b) in his review of intrinsic and extrinsic religiousness research.

Spilka, Stout, Minton, and Sizemore (1977) reported a KR-20 reliability of .91 for the intrinsic scale and of .85 for the extrinsic scale. Griffin and Thompson's (1983) research into denominational affiliation and religious orientation found Cronbach alpha reliabilities for three denominational groups ranging from .93 to .81 for the intrinsic scale and from .82 to .69 for the extrinsic scale. Other studies reviewed by Donahue report reliabilities ranging from .67 to .76 for the two scales (Batson, 1976; Kahoe, 1974).

Content and convergent validity of the ROS was also examined by Donahue (1985a). He undertook a review and meta-analysis of intrinsic and extrinsic religiousness examining nearly 70 articles and three current psychology-of-religion textbooks. Across four studies (Batson, 1976; Batson & Ventis, 1982; Jackson, 1981; Spilka, Pelligrini, Dailey, 1968) which compared intrinsic religious orientation as measured by the ROS and respondents' ratings of the importance of religion or religious commitment, the average correlation between the two constructs was .76. Donahue also concluded that the ROS correlates well with other measures of religiousness such as those discussed earlier in the literature review (Chapter Two).

Two instruments were used to measure mental well-being.

<u>The General Health Questionnaire (GHQ)</u>: The GHQ developed by David Goldberg (1978) is a self-report measure which has been used with both adults and adolescents (Goldberg, 1972; Henderson, Davidson, Gillard, & Baikie, 1977; Keyes, 1984) in medical and

community (Parkes, 1982) settings to give an assessment of an individual's position on an axis from normality to undoubted mental illness. It is an instrument designed to detect the presence of psychological dysfunction or distress and to help people who want to tell about their problems. As Black (1985) states, it would not be effective in a situation where individuals are motivated to minimize their problems or "fake good". Because the scale is published in Great Britain, slight wording changes have been recommended to make it consistent with North American vernacular.

No percentiles or standard scores are available for the GHQ but "threshold scores" are suggested by Goldberg to identify those individuals suffering from psychiatric illness. The instrument itself consists of 60 items but for ethical reasons, three items that deal with suicidal ideation have been omitted in the present research. Although shorter versions have been developed, a 28 and a 30 item GHQ, Black (1985) recommends the original 60-item version as it allows the patient or client to say more about him or herself. The items can be scored on a four-point Likert scale from 0-3 with a score of greater than 77 generally indicating some psychological disturbance.

Reliability of the GHQ, both test-retest and split-half, are reported by Goldberg (1978) in his test manual. For 20 patients given a standardized interview on two occasions over a 6-month period, the test-retest reliability was found to be .90. Goldberg also reported a split-half reliability computed on 853 completed questionnaires as .95. In a review contained in **The**

Ninth Mental Measurement Yearbook, Black (1985) indicates that reliabilities for the GHQ based on test-retest over a 6-month interval range from .51 to .90 for patients judged by themselves or their physicians to have changed little during the interval. Black also notes that the internal consistency of the GHQ is very high.

In terms of validity, content validity was determined by the 87.4% accuracy of the test to discriminate between psychiatric patients and healthy controls from a sample of 100 "normals", 100 severely ill patients, and 100 mildly ill out-patients (Goldberg, 1978). For concurrent validity, total score correlations between the GHQ and independent clinical assessments in seven different studies, were reported by Black (1985) to range from .71 to .88.

The Ego Strength (Es) Scale: The second measure of mental well-being is the Es Scale, a supplementary scale of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) (Hathaway & McKinley, 1989). It consists of 52 true-false items and is a self-report measure of adaptability, resiliency, personal resourcefulness, and effective functioning. It also purports to be a good measure of psychological health (Hathaway & McKinley, 1989). As the Es Scale has never been normed for adolescents an additional benefit of this study will be to determine whether indeed the Es scale appears to measure psychological health for adolescents as well as for adults.

In terms of the reliability of the Es scale, test-retest reliability studies with 82 males found correlations of .78,

while with 111 females the correlation coefficient was .83 (Hathaway & McKinley, 1989). The index of internal consistency (Cronbach alpha coefficient) with a sample of 1,092 males was .59 and with a sample of 1,378 females was .64 (Hathaway & McKinley, 1989).

The Questionnaire: In addition to these three instruments, a questionnaire developed by the researcher was administered to each subject (See Appendix A). Specific factors or life events associated with adolescent suicide in Alberta had been identified by Bagley (1989) and these life events were used in this study to question teens as to their present vulnerability. The purpose of the questionnaire, then, was to determine whether or not risk factors are present in the lives of the sampled teens. As well, the questionnaire was used to determine the regularity of the religious practices of each adolescent and of his/her parents, and to ascertain the perceived locus of control in terms of success/failure attributions for each student. Responses to the questions regarding religious practices, are scored as follows:

Question #1 - (Belief in God)	YES = 1 point NO = 0 points
Question #2 - #4 - (Church attendance, Private prayer, and Bible reading)	a) = 3 points b) = 2 points c) = 1 point d) = 0 points
Question #5 - (Religious commitment)	a) = 4 points b) = 3 points c) = 2 points d) = 1 point e) = 0 points

All further questions which require a YES or NO response are scored 1 point for YES and 0 for NO.

Procedure

Ethical approval to proceed with the present study was obtained from the University of Calgary Education Joint Research Ethics Committee. Consent was also received from the Assistant Superintendent of Student Services for the Calgary Catholic Schools to commence research in the Calgary Catholic high schools. A meeting was then arranged with the Assistant Superintendent at which time it was agreed that a letter be sent to each Catholic High School Principal stating the purpose of the study and requesting their permission to conduct the study in their respective schools (See Appendix B). Letters were sent to all five high schools in the Calgary Catholic Schools system. Three responded in the affirmative. The letters were then followed by an appointment with the Principals as well as Coordinating Teachers for the Religious Studies programs in each of the three schools who agreed to participate. The purpose of the meeting was to detail testing procedure and to decide upon dates for the return of consent forms and actual test administration. Letters which explained the aim and method of the research (See Appendix C) and consent forms (See Appendix D) were then distributed by the Religious Studies teachers to parents and students.

Actual test administration occurred within two weeks following the return of the consent forms between October 11 and

October 19, 1990. The test packets were filled out during regular school hours and required approximately 20 minutes to complete (range: 13 to 34 minutes). Testing was done in the classrooms during the Religious Studies period for two of the three schools (82% of the subjects). Students not participating in the study, i.e., those students who did not hand in signed consent forms, remained quietly in their desks working on classroom assignments during the entire test administration. For the 31 students in the third school, the test packets were distributed to them during their assigned Religious Studies period, but testing took place within a designated section of the school library where only participants were present.

Each test session followed the same procedure. The researcher introduced herself, the research, and the test material to be completed, distributed the test packets, thanked the students upon completion, and left. A standard administration began with the following introduction and instructions:

> My name is Joan Duckett and I am a graduate student in Educational Psychology at the University of Calgary. I am doing research into the relationship of religious commitment and mental well-being and I have requested and received permission from each of you to take part in this study. It will only take about 20 to 30 minutes. What I would like you to do now is to complete the questionnaires I will hand out. Just follow the directions on the sheets and if you do not understand something, just raise your hand. Remember that the information you give is confidential and no one will know whose answers are whose, so **please** answer honestly and do NOT sign your name. Any questions?

The test packets and pencils, if necessary, were then distributed. Any questions were answered by quietly talking to the individual student at his/her desk. As the test packets were

completed, they were returned to the tester at the front of the room or placed in a pile. When all students were finished and all the test materials collected, the researcher concluded the session and thanked the students with the following words:

> Thank you very much for your help in completing the questionnaires and participating in this study. For those of you who filled out your name and address on the consent form, a copy of the results will be sent to you. Again, thanks.

All test packets were examined immediately following the test sessions for completeness only and then placed in a box. Of the test packets that were distributed, six were incomplete and therefore not included in the data analysis. When test sessions at all schools were finished, the completed test packets (N=172) were shuffled and randomly sorted so as to assure anonymity. The individual packets were then numbered consecutively for the purposes of data collation.

Statistical Analyses

Research Question 1: To investigate the strength and the direction of the relationship between religious orientation and mental well-being in the high school students studied, a Pearson product-moment correlation was computed.

A second analysis was performed by examining the ROS scores in terms of a four-way typology using the midpoints of each scale, i.e., the intrinsic and the extrinsic scales of the ROS. An analysis of variance (ANOVA) was performed to determine whether a difference exists between the four groups in their mean

mental well-being scores. The four groups are defined as follows:

Intrinsic - an intrinsic scale score less than 27 and an extrinsic scale score less than 33

Extrinsic - an intrinsic scale score greater than 27 and an extrinsic scale score greater than 33

Non-religious - an intrinsic scale score greater than 27 and an extrinsic scale score less than 33

Indiscriminately Pro-Religious - an intrinsic scale score less than 27 and an extrinsic scale score greater than 33

It should be noted at this point that the lower the score, on both the intrinsic and extrinsic scales, the more intrinsic the religious orientation. And the higher the scores, the more extrinsic the religious orientation.

A regression analysis was also performed using SPSS Regresssion and entering religious practices also as measures of religiosity to determine if the adolescents identified as more religiously committed were more likely to be mentally healthy. In addition, Pearson product-moment correlations were computed to determine which of the religious practices identified (church attendance, private prayer, bible reading) were most strongly associated with intrinsic religiosity as defined by the ROS intrinsic scale, i.e., those nine items of the ROS which are intrinsically worded. The religious practices were also analysed by means of a Pearson product-moment correlation as to their relationship with the mental health measure, the GHQ.

Research Question 2: An examination of the influence of certain risk factors, i.e., life events, on the association of religiosity and mental well-being was done using the SPSS partial correlation procedure. The relationship between the ROS and the GHQ was determined controlling for all eight life events listed on the Questionnaire.

Research Question 3: As the Es Scale is a useful diagnostic tool in determining psychological well-being for clinicians working with adults, but has never been normed for adolescents, it was felt beneficial to compare it with the GHQ, a scale which has been used for psychological disturbance in a teen population. A Pearson product-moment correlation was therefore computed to determine the strength and direction of the relationship between these two measures.

Research Question 4: In respect to gender differences in religious commitment, a t-test was used to determine whether a significant difference exists between the ROS means for the male and female students.

Research Question 5: To investigate the correspondence between the students' individual religious practices and those which they perceive of their parents, Pearson product-moment correlations were computed for church attendance, private prayer, and bible reading.

Research Question 6: To examine the relationship between expressed religious orientation and perceived locus of control, comparisons using t-tests were made of ROS means for each of the six locus of control items, three items examining success attributions and three for failure attributions. Subjects who responded "no" to "luck" and "yes" to "hard work" and "ability" for success attributions were classified as "internal", whereas those responding just the opposite were classified as "external". Likewise for failure attributions, subjects responding "no" to "bad luck", and "yes" to "lack of effort" and "lack of ability" were classified as "internal" and the opposite, "external".

CHAPTER FOUR

RESULTS

Adolescent Beliefs and Practices

The results of the Questionnaire which examined the religious beliefs and practices of adolescents are presented in Table 1. As can be seen, belief in God was expressed by 97.1% of the teens sampled but only 37.5% viewed themselves as committed to their religion. Although 84.2% of the adolescents reported attending church, only 26.7% said they attended regularly. The percentage of teens who reported engaging regularly in private prayer is 19.9% while 38.3% reported that they seldom or never prayed. Bible reading was reported to be done regularly by only 1.8% and 32.7% of the students sampled said they never read the bible. These results correspond quite closely with the findings of Project Teen Canada reported by Bibby and Posterski (1985). The data from the Bibby and Posterski survey are also presented in Table 1 for comparison.

Religion and Mental Health

Table 2 contains the means and standard deviations for the GHQ, the Es Scale, and the ROS Total as well as the ROS intrinsic and extrinsic scales. The mean GHQ score of 50.78 implies that the subjects as a whole are healthy. If we use Goldberg's (1978) cut-off GHQ score of 77 or greater as indicative of psychological disturbance, then 18 students (10.5%) may be considered to be experiencing some mental health problems. And in terms of

Table 1

Percentages of Beliefs and Practices Reported by Study Sample

Beliefs and Practices	Study Sample (N = 172)	Project Teen Canada (N = 3,600)
Belief in God	97.1%	85%
Regular Church Attendance	26.7%	28%
Regular Private Prayer	19.9%	20%
Regular Bible Reading	1.8%	2%
Religious Commitment	37.5%	39%

Table 2

Means and Standard Deviations for the General Health Questionnaire, the Ego Strength Scale, the Religious Orientation Scale Total, and Intrinsic and Extrinsic Subscales

Instruments	Mean	Standard Deviation
General Health Questionnaire	50.78	21.07
Ego Strength Scale	29.74	5.72
Religious Orientation Scale	62.84	8.46
Intrinsic Scale	29.60	7.31
Extrinsic Scale	33.30	6.10

religious commitment, interestingly, the same number of students - but not the same individuals - can be classified as intrinsically religious using the four-way typology recommended by Donahue (1985). Also of interest is the fact that of the 172 teens included in the study, 57, or one third of them, can be considered non-religious.

Research Question 1: The results of the Pearson product-moment correlations failed to show a significant relationship between religious commitment as measured by the ROS and psychological well-being as measured by the GHQ nor between the ROS and the Es Scale. A Pearson product-moment correlation performed between the ROS intrinsic scale and the GHQ and again with the Es Scale, also failed to reach significance. (See Table 3). The results of these statistical analyses, therefore, found no significant relationship between religiosity and mental well-being in the study sample.

An ANOVA was performed on the GHQ scores of four groups partitioned on the basis of the ROS intrinsic and extrinsic scores as defined in Chapter Three (see Statistical Analyses section). The number of students classified into each group are as follows:

Intrinsic	18 students	(12%)
Extrinsic	37 students	(24.7%)
Non-religious	57 students	(38%)
Indiscriminately Pro-religious	38 students	(25.3%)

Table 3

Pearson Product-Moment Correlations Between the Religious Orientation Scale Total and Subscales and the Mental Well-Being Scales

	Mental Well-Being Scales	
	General Health Questionnaire	Ego Strength Scale
Religious Orientation Scale (ROS)		
Total	.04	.06
- Intrinsic Scale	.02	.10
- Extrinsic Scale	.04	-.03

The ANOVA on the GHQ scores yielded an $F(3,146) = .01$, $p < 1.0$. Then a second ANOVA was computed using the same four groups and their Es Scale scores and produced an $F(3,146) = .95$, $p < .42$. These results once again fail to show any significant relationship between religiosity and mental well-being.

A regression analysis was also performed between the GHQ as the dependent variable and the ROS and the religious practice items as independent variables. The results showed a Multiple R of .09, an R^2 of .01 and an Adjusted R^2 of -.02, $F(4,165) = .33$, $p < .86$. (See Table 4). The three religious practice items were entered into the equation after the ROS in the following order: church attendance, private prayer, and then, bible reading. All the religiosity variables accounted for approximately 2 percent of the variance such that this analysis, too, failed to find a significant relationship between religiosity and mental well-being as measured by the GHQ. The Pearson product-moment correlations with the religious practice items and the mental health measurements of the GHQ and the Ego Strength Scale, also failed to reach significance at the .05 level. (See Table 5).

There are, however, significant correlations between all measures of religious practice and religious commitment as it is measured by the ROS intrinsic scale. (See Table 6). Church attendance is related most highly to religiosity, where $r = -.59$, $p < .001$, and is followed closely by the adolescent self-reporting of perceived religious commitment, where

Table 4

Regression Analysis of Religiosity Measures on General Health Questionnaire (GHQ) Scores

Religiosity Variables	B	BETA	T	Signif. Level
ROS Scale	.09	.04	.43	n.s.
Church Attendance	-1.34	-.07	-.76	n.s.
Private Prayer	1.65	.07	.80	n.s.
Bible Reading	.17		.07	n.s.

Table 5

Pearson Product-Moment Correlations Between Religious Practice Items and Mental Well-Being

Religious Practices	General Health Questionnaire	Ego Strength
Belief in God	-.03	-.09
Church Attendance	-.06	.05
Private Prayer	.04	-.12
Bible Reading	.01	-.14 *
Religious Commitment	.01	-.06

* p< .06

Table 6

Pearson Product-Moment Correlations Between Religious Orientation Scale Total and Intrinsic Subscale and Adolescent Religious Beliefs and Practices

Adolescent Religious Beliefs and Practices	Religious Orientation Scale	
	ROS Total	Intrinsic Scale
Belief in God	-.11	-.20 **
Church Attendance	-.38 ***	-.59 ***
Private Prayer	-.29 ***	-.49 ***
Bible Reading	-.38 ***	-.50 ***
Religious Commitment	-.45 ***	-.57 ***

* p<.05 ** p<.01 *** p<.001

(NOTE: The ROS is scored inversely so that the lower the score the more intrinsic the religious orientation)

$r = -.57$, $p<.001$. It should be noted that the apparent inverse relationship between the two variables is due to the fact that a lower ROS score denotes greater intrinsic religiosity. These findings support the validity of the ROS as a measure of religiosity in terms of actual practices associated with a commitment to religious beliefs.

Research Question 2: The effect of life events on the relationship between religious commitment and mental well-being was examined by computing an SPSS Partial Correlation controlling for all life events. The obtained partial correlation, $r = .06$, $p< .45$, indicates that the relationship between the ROS and GHQ scores does not change significantly, nor become significant, when risk factors, i.e., life events, are held constant. Intercorrelations among life events and GHQ and ROS are presented in Table 7. Significant correlations between a number of the life events and GHQ scores were found. GHQ was significantly correlated with psychiatric diagnosis ($r = .35$, $p< .001$), deliberate self-harm ($r = .32$, $p< .001$), recent separation from a boy/girl friend ($r = .18$, $p< .05$), and serious abuse of drugs or alcohol ($r = .17$, $p< .05$). These four risk factors, then, appear to be negatively associated with mental well-being as measured by the GHQ, for the higher the GHQ score the greater the psychological disturbance. The partialling out of the risk factors measured in the present study, however, do not significantly affect the relationship between religiosity and mental well-being.

Table 7

Intercorrelations Among Life Events, General Health Questionnaire (GHQ) and Religious Orientation Scale (ROS)

	ROS	GHQ	LF1	LF2	LF3	LF4	LF5	LF6	LF7
LF1	-.05	.18*							
LF2	.09	.09	.07						
LF3	.06	.07	.20**	.05					
LF4	-.03	.02	-.07	-.09	-.05				
LF5	-.04	-.05	-.01	-.07	-.02	.38***			
LF6	-.01	.35***	.11	.23**	-.02	-.03	-.09		
LF7	-.08	.17*	.27**	.20**	.20**	-.04	-.02	.14	
LF8	.01	.32***	.18*	.08	-.03	-.08	-.02	.28***	.08

* p<.05 ** p<.01 *** p<.001

(NOTE: For the GHQ, the lower the score, the healthier the individual)

LF1 = Recent separation from boy/girl friend
LF2 = Failing grades in school
LF3 = Family history of mental illness
LF4 = Foster care for more than 5 years
LF5 = Separation from biological parents for more than 6 months
LF6 = Psychiatric diagnoses
LF7 = Serious abuse of alcohol or drugs
LF8 = Deliberate self-harm

The Ego Strength Scale

Research Question 3. A Pearson product-moment correlational analysis to determine whether, indeed, the Es Scale appeared to measure the same concept as the GHQ, yielded a significant negative correlation, $r = -.55$, $p<.001$. The negative direction of the correlation coefficient, reflects inverted scoring procedures on the two instruments such that a high score on GHQ implies psychological disturbance. In other words, Ego Strength seems to be associated with general mental well-being. The actual value of the correlation coefficient indicates, however, that the relationship between the two is only moderately high.

Gender and Religiosity

Research Question 4: The result of a t-test on the means of the ROS for female and male students indicated no gender differences in level of religious commitment. The ROS means were 62.43 and 63.44 for female and male students respectively, with $t = -.77$, $p< .44$.

Correspondence Between Adolescent and Perceived Parental Religious Practices

Research Question 5: To examine the relationship between adolescents' reported religious practices and their perceptions of their parents' religious practices Pearson product-moment correlations were computed for church attendance, private prayer, and bible reading. Significant correlations were found for all,

particularly for church attendance where $r = .80$, $p < .001$. (See Table 8). The correlations for private prayer and bible reading were $r = .42$, $p < .001$, and $r = .43$, $p < .001$, respectively. This suggests considerable correspondence between students' reported religious practices and those which they perceive of their parents.

Locus of Control

Research Question 6. The relationship between intrinsic religious orientation and perceived locus of control was explored by means of t-tests. When the mean ROS scores were compared for each attribution question on the Questionnaire in terms of the two locus of control groups, the trend is for the more intrinsically religious teens to respond in a direction consistent with internal locus of control. However, the responses to only one question attained a significant difference in group means: "When things go wrong in life, it will be largely a matter of lack of effort", where $t = 2.90$, $p < .01$. (See Table 9). The means for this question are 62.20 for the internal locus-of-control response compared to 66.36 for the external locus-of-control response. This suggests that those who perceive themselves as having some control in failure situations are more intrinsically religious than those who do not perceive such control.

Table 8

Pearson Product-Moment Correlations Between Adolescent and Perceived Parental Religious Practices

Adolescent Religious Practices	Perceived Parental Religious Practices		
	Church Attendance	Private Prayer	Bible Reading
Church Attendance	.80 ***	.45 ***	.43 ***
Private Prayer	.25 ***	.42 ***	.31 ***
Bible Reading	.26 ***	.23 **	.43 ***

* p<.05 ** p<.01 *** p<.001

Table 9

Comparison of Religious Orientation Scale and Locus of Control

Locus of Control	ROS Mean	Standard Deviation	t	Probability
Success Attributions:				
Luck				
No (Internal)	62.40	8.75	-.73	n.s.
Yes (External)	63.46	8.33		
Hard Work				
Yes (Internal)	62.73	8.38	.48	n.s.
No (External)	63.74	9.60		
Ability				
No (Internal)	61.78	9.52	-.53	n.s.
Yes (External)	62.90	8.38		
Failure Attributions:				
Bad Luck				
No (Internal)	62.50	8.88	-.41	n.s.
Yes (External)	63.08	8.33		
Lack of Effort				
Yes (Internal)	62.20	8.74	2.90	.01 **
No (External)	66.36	6.18		
Lack of Ability				
Yes (Internal)	62.33	8.66	.71	n.s.
No (External)	63.34	8.44		

** p<.01

CHAPTER FIVE

DISCUSSION, LIMITATIONS, AND IMPLICATIONS

Discussion

This was an exploratory study to investigate the relationship of religious commitment and mental well-being in adolescence. To this end, a group of teens from urban high schools completed self-report instruments measuring religiosity and mental health. It was anticipated that a significant correlation between these two measures would suggest religious commitment may be a protective factor in an adolescent's mental well-being.

Various research questions were posed to examine further the relationships between religious and mental health variables as well as between related concepts and instruments. Based on a review of the literature which identifies adolescents as a group at high-risk for mental health problems and with an increasing suicide rate, it was assumed that certain risk factors might be present in the lives of the young people tested. The presence of these risk factors, then, would suggest a need for protection, i.e., a need for mechanisms to prevent mental health problems from occurring or to lessen the effects of the risk factors themselves. It was proposed that religious commitment is one such mechanism.

The first research question, therefore, examined the possibility of a positive relationship between intrinsic religious orientation and psychological well-being in

adolescents. The results of three statistical analyses - a Pearson product-moment correlation, an ANOVA, and a regression analysis - failed to indicate a relationship between religiosity and mental well-being.

One way to examine these findings may be to approach them from a developmental perspective. Piaget suggests that the stage of formal operations, i.e., that level of intellectual development at which a child can understand abstract concepts, deal with hypothetical problems, and reason logically, may be reached by 11 or 12 years of age (Piaget as cited in Berns, 1989). It is at this stage that youth are beginning to develop a sense of self, including a moral code and a set of values. Erikson calls this the identitiy versus identity diffusion stage of psychosocial development. He explains it as a developmental process in which adolescents begin to question people, things, values, and attitudes on which they have previously relied (Erikson as cited in Berns, 1989). Erikson understands this to be on-going throughout the teen years. Work by Kohlberg and Kramer (1969) examined the moral development of young people, 12 to 25 years of age. They found that although scores on moral judgement maturity of adolescence were highly predictive of adult scores on moral maturity, moral maturity may not be reached fully until 25 years of age. Taking these three areas of developmental research into consideration, it is possible that adolescents may not have yet developed a mature sense of religiosity and religious commitment. A lack of maturity, then, on the part of some of the study sample may be one reason for the lack of a

significant relationship between religious commitment and mental well-being.

A second explanation for the research findings may be the complexity of the concepts themselves. An attempt to measure the totality of two concepts such as religious commitment and mental well-being with two short self-report instruments may be too simplistic. It may be that these concepts are, indeed, too difficult to operationalize.

A further implication of the present research findings is that religious commitment is not a protective factor in mental health. One way to examine this implication is to remember that the study sample was a normal sample and therefore may not have been "at risk". Previous research has suggested that protective factors are identifiable only when there is potential risk or stressors (Rutter, 1985). Rutter defines protective factors as "influences that modify, ameliorate, or alter a person's response to some environmental hazard that predisposes to a maladaptive outcome" (p.600). He further explains that "protective factors may have no detectable effect in the absence of any subsequent stressor; their role is to modify the response to later adversity rather than to foster normal development in any direct sense" (p.600).

In the present study very few adolescents were, in fact, affected by the identified "risk factors". The actual incidence ranges from three teens (1.7%) who have lived in foster or adoptive placement for five or more years, to 50 (29.1%) who have failed grades in school. Only 18 (10.5%) were experiencing any

degree of psychological disturbance (as measured by the General Health Questionnaire). If there is very little evidence of risk or stressors, it is difficult to state that protection is occurring. If there is no present threat, there is nothing to prevent. As Rutter articulates, the test of the strength of protective factors comes into play only when the environmental risk or crisis actually occurs. Perhaps those individuals who are religiously committed in their teens may indeed be better protected when they do face adversity in their young adult years. Maybe this, too, is a partial explanation for the positive relationship found by Bergin et al. (1988 & 1987) between mental well-being and religious commitment in their intrinsically religious sample of young adults. It may be speculated that the protective property inherent in religiosity may have ameliorated the effects of risk factors for those young adults committed to their faith and, indeed, encouraged the development of mental health.

Another explanation for the lack of a relationship between intrinsic religiosity and psychological well-being and subsequently the difficulty in considering religious commitment to be a protective factor in adolescence, may have to do with the religiosity of the study sample. The subjects were a fairly homogeneous group in terms of religiosity, all students from Catholic high schools. At the same time, religious commitment in terms of an intrinsic religious orientation is poorly represented with only 18 (10.5%) of the teens sampled expressing this level of commitment to their faith. Dealing with such small numbers,

it is difficult to draw any accurate conclusions. Because of the small percentage of sampled teens who are actually intrinsically committed to their religion, then, the potential protective effects of religiosity on adolescent mental health cannot be convincingly proved or disproved.

Statistical analyses of the religiosity - mental well-being association also assessed the strength of a relationship between religious practices and intrinsic religious orientation as well as the relationship between religious practices and mental well-being. Work by Steinitz (1980) and Witter et al. (1985) indicates that the practice of attending church is more an indication of religious activity than actual religious conviction. Further, Levin and Markides (1986), Markides (1983), and Steinitz (1980) found that the relationship between mental well-being and religiosity, as measured by church attendance, is affected by the physical health of their older subjects. This may not be the case with adolescents. And, indeed, in the present study, although all five religious practice indicators - belief in God, church attendance, private prayer, bible reading, self-reported religious commitment - were found to be significantly correlated with intrinsic religious orientation, church attendance of teens was found to be more closely associated than any other religious practice item, where $r = -.59$, $p < .001$. This suggests that the practice of attending church may indeed be interpreted differently for an adolescent population than for an elderly group. To the teens in this

study, the strength of their religious convictions were demonstrated to a high degree, by their acknowledged religious behaviours. However, no association was found between adolescents' religious practices and their mental health. Religious practices, then, are related to intrinsic religiosity but they do not appear to be related to mental well-being as it is measured in the present study.

The next research question of the study examined a psychological well-being instrument, the Ego Strength Scale, to determine its usefulness as a clinical indicator of adolescent mental well-being. If it was found to be highly correlated with the General Health Questionnaire, it might be percieved as a tool to be used similarly. Although results of the present study show the two instruments to be significantly correlated, the magnitude of the relationship, where $r = -.55$, $p < .001$, is not such that a substitution of one instrument for the other would be appropriate in clinical diagnostic work with adolescents.

The issue of gender differences in level of religious commitment was investigated next. The literature review showed a predominance of males in the mental health problem of adolescent suicide. If the present research had found religious commitment to be a protective factor, and the females to have higher levels of religious commitment than the males, then the incidence of higher risk in adolescent males may be more clearly understood. However, the present study failed to prove the first premise. As

well, the study found no difference between the mean scores of males and females on the religious commitment measure. It may be noted, though, that many more females than males chose to participate in the study - 102 to 70. Although teachers did not feel that there was a gender difference between participants and non-participants, the comparison in numbers is interesting. Unfortunately, the actual gender breakdown of the non-participants is not available, so further analysis of this is not possible.

The next issue explored the association between perceived parental and adolescent religious practices. This relationship was examined in terms of three parallel items. Adolescents were asked to describe how regularly they engaged in the three practices of church attendance, private prayer, and bible reading and then were asked their perceptions of their parents' regular practice of these same three behaviours. Results show a significant positive correlation between all adolescent and parental practices such that the perceived regular religious practices of parents is associated with regularity of religious practice in their adolescents. This finding suggests that adolescents, inspite of the influence of peer pressure, engage in religious behaviours consistent with those of their parents. This is not surprising as the research by Posterski and Bibby (1988) found that 62% of the teens they sampled did look to their parents for moral guidance.

It is interesting that the highest correlation between adolescent and perceived parental religious practice is with church attendance, where $r = .80$, $p < .001$. This is understandable, as church attendance is a more overtly observable behaviour than private prayer or even bible reading. Church attendance is also the behaviour most highly correlated with intrinsic religious orientation, $r = -.59$, $p < .001$. Adolescents take note of this religious practice in their parents and by employing the same behaviour, they may acquire a more intrinsic understanding of religion. If future research does indeed prove that religious commitment is a protective factor for mental well-being, we can surmise that these church-going adolescents would be well equipped to face life's stressors. And this protective shield has been made available to them, in large part, through parental example. The importance of parental modelling should be particularly remembered today as our society becomes one where many mothers spend the greatest part of their day away from their children and where most fathers spend far less time with their families than at any other time in history (Santrock, 1988).

The final research question involved the locus of control variable and its relationship to religious commitment. Perception of control in our world, whether we can cause things to happen if we choose (internal) or whether we are at the mercy of outside forces (external), has been determined to be important in the development of achievement and social competency

(Santrock, 1988) and has been investigated as to its relationship with self-esteem in adolescents (Giblin, Poland, & Ager, 1988). Is this perception of control associated with an expression of a specific religious orientation? The adolescents in this study responded in the direction of an internal locus of control implying that they feel they are largely responsible for their own successes and failures. However, an association was found only when examining reason for failures or disappointments where adolescents with internal locus of control were more intrinsically committed to their religion than those with external locus of control. There is not evidence in this study that teens feel at the mercy of outside forces such as an all-powerful and perhaps vengeful and merciless god. Instead, religious commitment seems to be associated with an attitude of responsibility for failure as well as the belief that things could be made better by achievable means.

Limitations

Limitations of the present study are generally in terms of the size and characteristics of the sample group as well as the instruments utilized to measure the concepts of religious commitment and mental well-being. It was anticipated, based on the literature reviewed, that there would be some evidence of stressors and resulting psychological disturbances in the lives of urban teens. This assumption was not borne out in the actual data collected for the study.

Only 47% of the adolescents approached were actually available for testing, though more had agreed to participate (54%) and it is suspected that a great many more would have participated if they had remembered their consent forms. Therefore, although the teachers felt that there was no age or gender differences between participants and non-participants, less than half of the group of young people approached actually participated in the study. As well, there are two specific characteristics of the sample group which are felt to limit the generalizability of the result findings.

The first characteristic is the homogeniety of the study sample. The subjects were all grades 11 and 12 students from three Catholic high schools, in an urban setting. Although the religious practices and beliefs ascribed to by the sample correspond closely to Bibby and Posterski's (1985) findings in their Project Teen Canada, there was a narrow range of variability in the present sample, particularly evident in their religiosity and mental well-being scores. Out of a possible range of 20 to 100 on the Religious Orientation Scale, 70% of the sample scored within a 35 point range from 32 to 67. The maximum and minimum scores were 32 and 80 respectively. With the General Health Questionnaire, the potential range is 0 to 180. Here 70% of the study sample scored between 27 and 67, a range of only 40. The maximum score on the GHQ was 128 and the minimum was 13 with 89.5% of the subjects scoring less than 77. Because of this narrow range of scores, then, the results of the present study

should not be generalized to a more heterogeneous population with a wider range of variability.

The second limiting characteristic concerns the normality or the low incidence of psychological distress and risk factors exhibited by the sample. Based on the literature which identifies the teen years as those at high risk for mental health problems, it was anticipated that a moderate number of the adolescents sampled would be experiencing some difficulties. However, only 10.5% or a total of 18 individuals out of the 172 tested exhibited evidence of psychological dysfunction as measured by the the General Health Questionnaire. The actual presence of risk factors in the lives of the teens sampled was also low. Bagley (1989) identified factors which differentiated teens at risk for the mental health problem of suicide and these were used as risk factors in the present study. It was found that a maximum of 50 teens in the study sample had experienced one of the eight factors and only seven had experienced four or more of the factors (none had experienced more than five factors). It would seem, then, that the sample was essentially a **normal**, non-at-risk one, which is, of course, a positive and welcome finding. But at the same time, this means the presence, if any, of protective mechanisms would not be readily discernible. In other words, the results might have been different had a **clinical** sample been included.

Limitations of the present study may also be attributed to the instruments utilized to measure religious commitment and mental well-being. Although Allport and Ross' Religious

Orientation Scale is still the most widely used tool for measuring religious commitment, it was developed 24 years ago and item content and wording may be somewhat dated and less applicable today than at its conception. This may also apply to the General Health Questionnaire which was first published by David Goldberg 19 years ago. Donahue (1985a), after reviewing the ROS, concludes that, though intrinsic religiousness serves as an excellent measure of religious commitment, "by itself it seems to correlate with little besides other measures of religiousness" (p. 415). And with the GHQ, although Black (1985) states that it detects the presence of psychological dysfunction or distress of sufficient magnitude to warrant medical notice and was designed for community use, perhaps it is more relevant with a population who are already experiencing some physical distress and are therefore seeking medical help.

But more important still, limitations may be due to the inherent difficulty of measuring the two concepts of religious commitment and mental well-being. Because of the complexity of both concepts, it may be that no instrument could adequately measure religious commitment and mental health in their totality.

Implications

The present research set out to determine whether a relationship exists between religious commitment and mental well-being in adolescence such that religious commitment might be considered a protective factor. Statistical analyses of the study results failed to find a relationship between the two

concepts. This may be due to both the complexity of the concepts themselves and to the maturity level of the study sample. This final section, then, will suggest alternate designs and subject groups for future research. It will also discuss practical implications of the present findings.

The entire study was premised by a community psychology bias in terms of primary prevention. When examining the issue of the Lethbridge adolescent suicides, the suggested focus is a preventive one which precedes the event and recommends intervention at a general population level. It might involve the implementation of programming for all teens or perhaps even pre-teens, aimed at protecting the population from the risk of mental health problems. And what might this programming include? The purpose of this study could be interpreted as an attempt to find evidence for the inclusion of religious components in such protective programming. A lack of statistically significant correlations between measures of religiosity and mental well-being may erroneously be thought to negate the inclusion of religion in a prevention package. But these same results may also be used to support the inclusion of religious commitment in primary prevention programming.

The statistical analyses computed between religious commitment and mental well-being did not reveal a positive correlation between the two variables. Nor did they reveal a negative correlation. Ellis (1987) argued that religiosity is antithetical to high-level emotional functioning but the present study reveals no such relationship. Religious commitment does

not appear to be a detriment or a negative influence to the mental well-being of adolescents. It is not correlated with psychological disturbance. Indeed, it is associated in one instance with a healthy aspect of internal locus of control.

This argument, taken further, can suggest that as there is no evidence in the present study to suggest that religiosity is a negative influence on mental health as suggested by Ellis (1987), it **could** be incorporated into preventive programming. One important practical implication of the present study results, then, would be the inclusion of religious components in mental health programs. For in the spirit of primary prevention do we not provide intervention before a clear need for the intervention has been determined (Forgays, 1983)? Religious commitment does not harm mental health and "bland" results in other studies (Bergin, 1983; Bergin, Masters, & Richards, 1987; Chamberlain & Zika, 1988; St.George & McNamara, 1984) have shown it to be associated with mental well-being in young adults. Rutter (1987) states that, "Protection does not reside in the psychological chemistry of the moment but in the ways in which people deal with life changes and in what they do about their stressful or disadvantageous circumstances" (p.329). Therefore, a possible future method of researching the potential of religious commitment as a protective factor would be to evaluate the inclusion of religious components in a prevention program. To do this, parallel programs could be implemented, one with and one without a religious component. An evaluation of the comparative

effectiveness of the two programs would then give an indication of the strength of the religious component.

A second practical implication of the study pertains to the finding of a high correlation between adolescent and parental religious practices. This is especially true for the overt religious behaviour of church attendance. Stack (1983c, 1985) found that a lack of church attendance in young people, aged 15 to 29 years, was highly correlated to suicide. When the percentage of youth attending church increased, the percentage of suicides decreased. By providing their adolescents with an example of church attendance, then, are parents decreasing the risk of teen suicide? Certainly the teens studied here were more apt to be participating in religious activities, particularly church attendance, if their parents were also actively involved. The importance of parental example is evident, therefore, in the lives of these teens, in the ways in which they learn and espouse their religious beliefs and commitments. Parental modelling of religious practices may also prove to be an important aspect in the reduction of adolescent mental health problems.

In terms of the present study, however, and the limitations evident in it, some suggestions can also be made for future research designs and subject samples that would perhaps provide a better indication of the relationship between religiosity and mental well-being in adolescents. Future research may involve a longitudinal design in which young people are followed over a period of perhaps three to five years and interviewed once a year. In this way the chance of encountering stressful

situations is increased so that there is also a greater likelihood that protective processes will be evident in the lives of the teens studied. If the teens are followed on into their young adult years, it may provide a measure of how well religious commitment helps them cope with the stresses inherent in their early 20's.

A second suggestion is that a matched group of adolescents that are differentiated in terms of their religious orientation be tested or followed over a period of time. This would provide an indication of the difference religious commitment can make in the lives of similarly defined adolescents. Or, instead, a matched sample from a clinical population of adolescents and a population of mentally healthy teens tested as to their level of religiosity.

A third suggestion is the study of adolescents who are actively participating in an expression of their religious beliefs, perhaps a church group, and a group of teens who are disinterested in religiosity. The groups could then be compared on various measures of mental well-being to determine whether there is any difference between the psychological health of the two groups of young people. This study would also have to take into account factors related to mental well-being that may also differentiate the two groups so that the research results are not confounded by uncontrolled variables such as academic success, emotional stability, and family stability.

A fourth and most telling, but also somewhat impractical design, would be to administer religiosity and mental well-being

measures to adolescents immediately following an encounter with a stressor or a potential risk situation. This might suggest the administration of self-report questionnaires, similar to the ones employed in the present study, to students in the Lethbridge schools immediately following the suicide of their classmate. The ways in which individuals cope and the documented presence of religious commitment and mental health would provide accurate measures of the influence of religion in the protective process. However, the implementation of this design would be difficult as the timing of risk situations is unpredictable, as well as potentially unethical. The presentation of hypothetical risk situations could be used instead although this method is similar in format to that used to measure Kohlberg's stages of moral development and would therefore be subject to the same criticisms, i.e., what a subject says he/she will do and how they actually react in a given situation may be very different.

This study set out to explore the relationship between religious commitment and mental well-being in adolescence. If a significant relationship had been found, it was possible that religious commitment might be considered a protective mechanism at work in the prevention of mental health problems within the high risk age group of adolescents. The present findings, however, were not as anticipated due perhaps to limitations in the size and characteristics of the sample group, and more especially, to the complexity of the two concepts of religiosity and mental health.

The study did find that most adolescents believe in God yet few are intrinsically religious, as measured by the ROS. Perhaps it may be speculated that few teens live their faith, and also that few demonstrate through religious practices a knowledge of possible ways to obtain spiritual knowledge. However, those that do practice their religion perceive their parents as engaging in similar behaviours. These religious practices in adolescence also appear to be highly associated with an adolescent's deeper commitment to his/her religion.

Although the present study did not find evidence of a link between religion and mental well-being, it may be suggested that these findings do not necessarily negate the possiblity that the development of religious commitment may be part of the primary preventive process nurturing protective mechanisms. Future research utilizing different designs or sample groups as has been suggested may indeed be able to identify religious commitment in the successful encounter of the individual with a risk situation. For it is through the overcoming of life's adversities, those disadvantageous situations, that we grow and develop, that we become mentally healthy. As James, an early Chrisitian disciple wrote, "My brothers and sisters, whenever you face trials of any kind, consider it nothing but joy, because you know that the testing of your faith produces endurance; and let endurance have its full effect, so that you may be mature and complete, lacking in nothing" (James 1: 2-4).

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APPENDIX A

QUESTIONNAIRE

Age : _____years _____months

Sex : _____Female _____Male

Religious Practices

Question #1 :
Do you believe in the existence of God?
_____Yes _____No

Question #2 :
Do you attend church :

_____Regularly
_____Sometimes
_____Seldom
_____Never

Does your parent/guardian attend church :

_____Regularly
_____Sometimes
_____Seldom
_____Never

Question #3 :
Do you pray privately :

_____Very Often
_____Sometimes
_____Seldom
_____Never

Does your parent/guardian pray privately :

_____Very Often
_____Sometimes
_____Seldom
_____Never

Question #4 :
Do you read the Bible :

_____Regularly
_____Sometimes
_____Seldom
_____Never

Does your parent/guardian read the Bible :

_____Regularly
_____Sometimes
_____Seldom
_____Never

Question #5 :
Which of the following comes closest to describing the nature of YOUR religion?

_____I regard myself as a committed Christian
_____I am deeply committed to a religion other than Christianity
_____I have a mild interest in Christianity and other religions, but I do not see myself as deeply religious
_____I find myself interested in a variety of religions, but not committed to any particular one
_____I am not a religious person
_____Other (please comment)

Life Events

	YES	NO
Question #1 : Have you separated from your boy/girl friend in the last month?	___	___
Question #2 : Have you failed any grades in school?	___	___
Question #3 : Is there a history of mental illness or suicide in your family (parents, siblings, aunts, uncles, grandparents)?	___	___
Question #4 : Have you lived for five or more years in an adoptive or foster home?	___	___
Question #5 : Have you ever been separated from your biological parents for more than six months?	___	___
Question #6 : Have you ever been diagnosed by a psychiatrist as having:		
Depression	___	___
Schizophrenia	___	___
Personality Problems	___	___
Borderline Personality	___	___
Question #7 : Do you seriously abuse alcohol or drugs?	___	___
Question #8 : Have you ever deliberately tried to harm yourself?	___	___

General Questions:

If you succeed in life, will it be largely a matter of:

Luck	___	___
Hard work	___	___
Ability	___	___

Any other reason _____

When things go wrong in life, it will be largely a matter of:

Bad luck	___	___
Lack of effort	___	___
Lack of ability	___	___

Any other reason _____

APPENDIX B

Joan Duckett
Department of Educational Psychology
University of Calgary
CALGARY, Alberta
T2N 1N4

Date_____

Principals: Frank Maddock High School
Bishop Carroll
Bishop Grandin
Father Lacombe
St. Francis
St. Mary's

Dear_____:

I am a graduate student in Educational Psychology at the University of Calgary and am currently conducting research for my M.Sc. thesis in the area of religious commitment and mental well-being in adolescents. The research involves the administering of four self-report questionnaires to a group of young people, one examining religious commitment, two for mental well-being, and the fourth regarding frequency of religious practices and presence of risk factors.

I would like to request the participation of approximately 50 students from your High School in this study. The administration and completion of the questionnaires will involve only twenty minutes of class time.

I would be pleased to discuss the details of my research with you and hope to be in contact with you in the next few days.

Thank you for your cooperation.

Sincerely,

Joan Duckett
Graduate Student

APPENDIX C

Joan Duckett
Department of Educational Psychology
University of Calgary
Calgary, Alberta
T2N 1N4

Date_____

Dear Parent/Guardian and Student:

I am a graduate student in Educational Psychology at the University of Calgary and am currently conducting research for my M.Sc. thesis in the area of mental well-being and religious commitment in adolescents. Approval for this research has been received from both Dr. Quinn, Assistant Superintendent with the Calgary Catholic School Board, and your principal. The study involves the administering of four self-report questionnaires to a group of young people, one examining religious commitment, two for mental well-being, and the fourth regarding frequency of religious practices and presence of risk factors.

I would like to request the participation of students from your school as the subjects in this study. The administration and completion of the questionnaires will take about 20 minutes and will be completed during regular class hours. All information will be obtained anonymously and no names will be recorded on any research material. Only group results will be reported. Students are under no obligation to participate or complete the questionnaires nor will they be penalized if they choose not to participate. They are free to withdraw from the study at any time.

If you are in agreement with participation in this study, please sign the attached consent form and return it to the school by _____. If you have any questions, please do not hesitate to call me (241-1242), or my supervisor, Dr. Anita Li, a professor at the University of Calgary, Department of Educational Psychology (220-6756). A summary of the research results will be available to you upon completion of the study.

Thank you for your cooperation.

Sincerely,

Joan Duckett
Graduate Student

APPENDIX D

Consent Form

Mental Well-Being and Religious Commitment Research

Date:_____ Name of Student:_____

School:_____

I agree to the participation of my son/daughter in the research study with the understanding that my child's name will not be used on any of the materials gathered, that my child is under no obligation to participate, that he/she may withdraw from the study at any time, and that my child will not be penalized if he/she chooses not to be involved in the study.

_____
Signature of Parent/Guardian

I agree to participate in the research study with the understanding that my name will not be used on any of the materials gathered, that I am under no obligation to participate, that I may withdraw from the study at any time, and that I will not be penalized if I choose not to be involved in the study.

_____
Signature of Student

If you would like to receive a summary of the study results, please print your name and address so that a copy can be mailed to you.

Name: _____

Address: _____

_____

Postal Code:_____

Thank you for your help.