CHAPTER ONE : INTRODUCTION

> *Every 40 seconds someone commits suicide somewhere in the world.*
>
> (www.who.int/violence_injury_prevention)

> *During the whole course of this year, when I almost unceasingly kept asking myself how to end the business, whether by the rope or by the bullet, during all that time, alongside of all those movements of my ideas and observations, my heart kept languishing with another pining emotion. I can call this by no other name than that of a thirst for God. This craving for God had nothing to do with the movement of my ideas – in fact, it was the direct contrary of that movement – but it came from my heart.*
>
> Leo Tolstoy (quoted in Pargament, 1997, p. 133)

1 Brief Overview and Rationale

Suicide has been described as "the anchor point on a continuum of suicidal thoughts and behaviours. This continuum is one that ranges from risk-taking behaviours at one end, extends through different degrees and types of suicidal thinking, and ends with suicide attempts and suicide" (Redfield Jamison, 2001, p. 34). Suicidal ideation is "a form of mild suicidal behaviour, a predictor of suicidal behaviour, a clinical phenomenon in its own right" (Linden, Zäske, & Ahrens, 2003, p. 17). Therefore suicidal ideation is a useful focus for any investigation of suicidal behaviour.

Internationally, suicide is highly prevalent in the 15-to-24 year old age group (Johnson, Krug & Potter, 2000). It is the third leading cause of death in the United States in this age group, and the second leading cause of death for students (Frankl, 1997). The suicide rate among adolescents and young adults almost tripled in the years 1952 to 1995 (The Centers for Disease Control and Prevention [CDC], 2001). Although research on suicide among young people in South Africa is still limited, the data suggest that suicide is a serious problem and prevalence is increasing, particularly among populations with previously lower suicide rates (Schlebusch, 2005, cited in Horner &

Fredericks, 2005). It is hoped that research into the factors influencing suicidal behaviour in the youth will provide further knowledge of the prevalence of suicidal ideation in young adults, as well as concrete suggestions regarding suicide prevention and intervention.

While the literature suggests that religion and spiritual issues are significant and meaningful to many patients confronting suicide, scales assessing suicidal risk almost entirely fail to consider religion and spirituality (Kehoe & Gutheil, 1994). Sociological research into the relationship between religion and suicide dates back to the nineteenth century when Emile Durkheim ([1897] 1966, cited in Stack & Wasserman, 1992) proposed that religion (particularly Catholicism) may protect individuals from committing suicide because it promotes integration and serves as a regulator of social behaviour. Later sociological research largely continued to demonstrate the protective effects of religion on suicidal behaviour, and this was attributed to factors such as commitment to a few core beliefs (Stack, 1983, cited in Stack & Wasserman, 1992) and the benefits of the social networks that religion provides (Pescosolido & Georgianna, 1989).

Psychological research into religion and suicidal behaviour has not been extensive and has provided mixed support for the contention that religion protects against suicidal behaviour. Of 68 psychological studies on the relationship between religion and suicide, 84% found lower rates of, or more negative attitudes towards, suicide in the more religious (Koenig, 2001/2a). However, religion can also lead to personal strain and conflict, and religious strain has been associated with suicidality regardless of religiosity levels or the degree of comfort found in religion (Exline, Yali and Sanderson, 2000). These mixed findings are echoed in the broader literature concerning the impact of religion on psychological functioning. Thus while studies that report a positive relationship between religion and optimal psychological functioning far outnumber those without any relationship or with a negative relationship (Koenig, 2001/2a), researchers have also shown how religious strain or spiritual distress can impact negatively on psychological functioning (Larson & Larson, 2003; Pargament et al., 1988).

Psychological research into the relationship between religion and suicidal behaviour has tended to focus on indicators of religiosity (such as the self-

reported salience or importance of religion, and frequency of attendance at religious services and of prayer) rather than the more germane issue of how faith or religious belief impacts on the cognitive processing involved in suicidal ideation. Since areas of psychological functioning such as coping, depression, hopelessness and helplessness are risk factors for suicidal behaviour in adolescents and young adults, there is a need to explore how religion impacts on these factors.

An important question is why religion may sometimes be harmful, and to answer this it is important to investigate what aspects of religiosity may be positive or negative. The literature on religious coping is of particular interest here, since research has shown that religious coping can be either helpful or harmful (Pargament, 1997). Additionally, since suicidal ideation has been defined as "a reaction to (the) severe burdens of life" (Linden et al., 2003, p. 17), coping may be a useful dimension of religiosity to explore in relation to suicidality. While there have been several studies on the impact of different approaches to coping on suicidal behaviour, there appears to have been no research to date on the potential impact of religious coping approaches.

In summary, research is required to investigate the relationship between suicidal ideation and religiosity (in particular religious coping), with a focus on young adults among whom suicidal behaviour is so prevalent

2 Aim of the Study

This study aims to investigate firstly the prevalence of suicidal behaviour, including suicidal ideation, in young people aged between 18 and 30 in South Africa, where statistical information regarding suicide is not extensive.

The second area of exploration is into the relationships that may exist between several indicators of religiosity and three different styles of religious coping (collaborative, self-directing and deferring), on the one hand, and suicidal ideation and positive ideation on the other.

Suicidal and positive ideation will be measured by the Positive and Negative Suicide Ideation Inventory (PANSI) (Osman, Gutierrez, Kopper, Barrios, & Chiros, 1998). Previous suicide attempts and indicators of religious salience

and participation will be measured via a demographic questionnaire, while religious coping will be assessed using the Religious Problem-Solving Scales (short form) (Pargament et al., 1988). All of these instruments are self-report inventories.

CHAPTER TWO : LITERATURE REVIEW

Suicide and religion have long been associated because, until relatively recently, suicide was considered by theistic religions as a sin against God:

> Death by suicide ends all opportunity for repentance. Almighty God created life. It is His. Murder, including self-murder, is a transgression of His law. (American Council of Christian Churches, 1961, quoted in Hillman, 1997, p. 31).

However, in the Old and New Testaments, there are no religious sanctions regarding the suicides that are recorded. Like the suicides of ancient Greeks related by Homer, these suicides were portrayed as having been committed in order to preserve honour, atone for sins, or to uphold a religious or philosophical principle (Redfield Jamison, 2001). In both rabbinical thought and early Roman Church history, a religious justification for suicide emerged (Hillman, 1997). In Judaism, suicide was justified in order to avoid the three greatest sins, namely idolatry, incest and murder. This form of suicide was martyrdom as a sacrifice for the sanctification of God. Similarly, among the early Christian martyrs, Apollonia (d.249) threw herself onto the flames and was sanctified because her death was considered to be for God. This was somewhat different to those many Christian martyrs who intentionally allowed themselves to be killed, but never by their own hands. Martyrdom offered a key to paradise to the early Christians, whose lives were made difficult by persecution, rejection and poverty, and it was the eventual cult of martyrdom that led the Catholic Church to oppose suicide (Alvarez, 1971). St. Augustine (345-430) motivated this condemnation by arguing that suicide violates the sixth commandment, “Thou shalt not kill”, and, during the sixth and seventh centuries, those who had died by committing suicide were excommunicated and denied funeral rites (Redfield Jamison, 2001). Thus in a few hundred years, despite the fact that: “suicide, thinly disguised as martyrdom, was the rock on which the Church had first been founded” (Alvarez, 1971, p. 62), it came to be regarded as a deadly mortal sin.

Although not explicitly forbidden in the Talmud, Jewish custom and rabbinical texts discouraged funeral orations and the tearing of mourners’ clothes for those who had committed suicide, and until only a few decades ago, they

were buried in isolated parts of cemeteries (Oosthuizen, 1988; Redfield Jamison, 2001).

Over time, the sinfulness associated with suicide in Judeo-Christian culture was gradually de-emphasised. In 1647, *Biathanatos*, a landmark treatise about suicide written by the poet John Donne, who was also the Dean of St Paul's Cathedral in London, was published. He refuted the previous Christian views on suicide, stating that it was justifiable in certain circumstances, and should be seen as understandable in human terms. He even suggested that the death of Jesus of Nazareth could be regarded as a case of suicide, because he had the choice of whether or not to die (Pritchard, 1995; Williams, 1997). Increasingly suicide was considered to be an act of an unsound mind (*non compos mentis*), rather than due to personal weakness or sin (Redfield Jamison, 2001).

There are varying attitudes towards suicide in other religions. Islamic law deems suicide a crime as grave as murder, and the Q'uran contains three specific sanctions against self-killing (Pritchard, 1995). The consequence of suicide is eternal condemnation, and mourners are not permitted to offer funeral prayers for someone who has committed suicide (Jahangir, ur Rehman & Jan, 1998)[1]. In Hinduism, there is a taboo against suicide, especially among men (Pritchard, 1995), although in the past Hindu widows who had themselves burned when their husbands were cremated enhanced their social position (Oosthuizen, 1988). The Hindu belief in the transmigration of souls renders suicide a futile exercise, and similarly in Buddhism, suicide will not prevent one from escaping one's karma, but is permitted when an *Arahat* (an enlightened one) is terminally ill with unendurable pain. In traditional African spiritual beliefs, a bewitched person

[1] The recent upsurge in Muslim suicide bombers and attackers has again focused attention on religious martyrdom by suicide. In 1983, when Shiite Muslims died in suicide attacks on American military barracks in Beirut, psychologists labeled them mentally unstable individuals with death wishes (Perina, 2002). Today experts agree that the acts of suicide bombers are more attributable to organizational masterminds who may appeal to recruits' religious piety or patriotism – however, neither factor is necessary or sufficient to foment suicide terrorism. A study by Merari, professor of psychology at Tel Aviv University, of 32 suicide bombers did not reveal predominant suicidal ideation or social dysfunction, but did suggest that susceptibility to indoctrination was key – almost all were young, unattached males. Other research has delivered mixed results, indicating both the increased presence of depression and despair among Palestinians, as well as increased hope, pride and social cohesion (Perina, 2002). Thus the role of religion in this form of martyrdom is far from clear.

who kills himself becomes an evil spirit that does not go to the kingdom of the ancestors, but instead continues to roam (Oosthuizen, 1988). In some religions, deliberate suicide for religious reasons is still practised – for example, the Jains in India engage in ascetic practices to achieve salvation, and on occasion fasting adherents voluntarily starve to death (Wulff, 1997).

Religiosity has gradually declined in many societies, which means that religious proscription against suicide has lost its influence (Hood, Spilka, Hunsberger & Gorsuch, 1996). Thus, the option of ending one's own life has become more acceptable, even among the religious. This does not imply however that the spiritual implications of suicide are not considered by those who are contemplating taking their own lives.

Turning to the focus of this study, suicide among young people has become cause for considerable concern, and this literature review will commence with a consideration of the prevalence of and risk factors associated with suicidal behaviour in this age group. Research in the social sciences on the relationship between suicide and religion will be reviewed, and then positioned within the broader arena of research into the impact of religion on psychological functioning. The impact of religion on the risk factors for youth suicide will be examined, and finally a cognitive-affective-behavioural model of suicidality will be utilised to investigate the potential impact of religious attributions on suicidal behaviour.

1 Suicide – Prevalence and Risk Factors

1.1 Prevalence – internationally and in South Africa

1.1.1 Prevalence – international data

Suicide is the eighth leading cause of death in the United States, and the third leading cause of death in the United States for 15 to 24 year olds, after unintentional injury and homicide. In 1998, people younger than 25 accounted for 15 percent of all suicides, and from 1952 to 1995, the suicide rate among adolescents and young adults nearly tripled (CDC, 2001). More

teenagers and young adults die from suicide than from cancer, heart disease, AIDS, birth defects, strokes, pneumonia, influenza, and chronic disease, combined (American Psychological Association [APA], 2004).

In 2001, the suicide rate in the USA for young people aged 15 to 19 was 7.95 per 100,000, and 11.97 for those aged 20 to 24 (CDC, 2003, cited in Kisch, Leino & Silverman, 2005). The Big Ten Student Suicide Study reported a suicide rate of 7.5 per 100,000 for college and university students from 1980 to 1990, compared to a national rate of 15 per 100,000 for a sample matched by age, gender and race (suggesting that university attendance in the USA is not in itself a risk factor). Most suicides among male and female students were in the age range 20-24. (Silverman, Meyer, Sloane, Raffel & Pratt, 1997).

It is noteworthy that suicide rates and patterns around the world vary considerably. In contrast with most Western nations, in Asia the ratio of youth to elderly suicides is decreasing (De Leo & Spathonis, 2004). In Johnson et al.'s (2000) survey of suicides among 15 to 24 year olds in 34 of the world's wealthiest nations, suicide rates ranged from 2.3 per 100,000 (Kuwait and Greece) to 27.1 per 100,000 (Finland), with an average of 8.0 per 100,000.

With regard to the prevalence of suicide attempts[1] in young people, a very comprehensive study of 15,977 university and college students in the USA, the Spring 2000 National College Health Assessment Survey, revealed that 1.5% had attempted suicide, and one third of these (0.5%) had three or more attempts (Kisch et al., 2005). However, other studies on smaller samples show different prevalence levels – for example, of 298 Canadian undergraduate student participants in Edwards and Holden's (2001) study, 4% of males and 11% of females (7% of the total number) had made one or more suicide attempts in their lifetime. "The history of a suicide attempt statistically contributes to increased risk for further attempts and eventual death by suicide" (Kisch et al., 2005, p. 5). Approximately 35 to 45% of adolescents who complete suicide have previously attempted suicide (APA, 2004).

[1] See Appendix A for definitions of different types of suicidal behaviour, including attempts and suicidal ideation.

When suicidal ideation among adults is examined, those aged 18 to 24 have the highest incidence of reported suicidal ideation (Crosby, Cheltenham & Sacks, 1999, cited in Kisch et al., 2005). Findings from a World Health Organisation survey of 5,438 adult patients from 15 international primary health care centres indicated that 9.7% of general practice patients admitted having suicidal ideations during the previous two weeks (Linden et al., 2003). Suicidal ideators tended to be younger, and were more likely to be female than male (Linden et al., 2003). The Spring 2000 National College Health Assessment Survey referred to above revealed that 9.5% of students had seriously considered attempting suicide in the previous 12 months, and that most of the suicide attempters had seriously considered suicide prior to their attempts (Kisch et al., 2005). In the Canadian student study referred to above, 56% of males and 62% of females reported suicidal ideation within their lifetime; and 15% of both male and female participants had ideated in the previous four weeks (Edwards & Holden, 2001). Studies indicate that between 2.6% and 5.5% of suicide ideators do eventually commit suicide (Scocco, Marietta, Tonietto, Della Buono & De Leo, 2000).

Male completed suicides exceed female completed suicides. For example, the suicide rate for male students in the Big Ten Student Suicide Study was approximately double that of female students, and in the international suicide survey of suicides among 15 to 24 year olds, the male suicide rate was more than double (and in many cases as much as four to six times) that for females (with the exception of Mauritius, Singapore, South Korea and Hong Kong) (Johnson et al., 2000). However, the gender difference in completed suicides reverses for other suicidal behaviours (Thompson, Mazza, Herting, Randell & Eggert, 2005). For example, approximately 4 to 10% of adolescent boys compared to 10 to 20% of girls report having attempted suicide (APA, 2004). As is the case with suicide attempts, suicidal ideation is more common among females than males (Mazza & Reynolds, 1998), and this gender difference is often interpreted by viewing suicidal behaviour as a coping response in women who have fewer economic and power resources than men (Edwards & Holden, 2001). There is also evidence to suggest that women tend to report depressive symptoms more frequently than men do, which may account for the fact that women also attempt and contemplate suicide more frequently (D'Zurilla, Chang, Nottingham, and Faccini, 1998). In 1997 27% of female high school students and 15% of male students had seriously

considered suicide (APA, 2004). Therefore, internationally, young adults are at significant risk for suicidal behaviour, and, while young men are more likely to complete suicide, young women are more likely to attempt or think about committing suicide.

1.1.2 Prevalence – South African data

In South Africa, suicide is a growing problem – every hour, one person commits suicide and the numbers are continuing to rise with as many as 40 attempts per hour (Sookha, 2005). The overall South African suicide rate is 17.2 per 100,000, compared to the World Health Organization's estimated global average of 16 per 100,000 (Schlebusch, 2003, cited in Padayachee, 2003b). Suicide is reported to be the primary cause of non-natural deaths among the White population, and the second most common cause of non-natural deaths among the Black population (Medical Research Council National Injury Surveillance System, 2003, cited in Padayachee, 2003a). Of South Africa's suicide victims, 43% are Black, 38% are White, 16% are Coloured, and 2% are Indian. While the suicide rate among Whites has remained reasonably constant, there has been a 48% increase in Black suicides in the past 10 years (Schlebusch, 2005, cited in Horner & Fredericks, 2005).

Young men are particularly vulnerable to death from unspecified unnatural causes (Padayachee, 2003a), including suicide, which accounts for 10% of these deaths, up from 8% in 1999 (Schlebusch, 2005, cited in Horner & Fredericks, 2005). Thirty-six percent of young men falling in the 15 to 29 age group fell into this category in 2001. By contrast, only 7% of young women in the 15 to 29 age group died from unspecified unnatural causes in 2001 (Statistics SA, 2002). There were nearly five male suicide victims to every female (Medical Research Council National Injury Surveillance System, 2003, cited in Padayachee, 2003a). However, female suicide rates have increased at least threefold in the last five years (Meel, 2005, cited in Horner & Fredericks, 2005).

For every completed suicide in South Africa, there are 20 people who have tried to kill themselves (Padayachee, 2003b). Between 10 and 12% of all patients referred to general hospitals for psychiatric or psychological help were because of non-fatal suicide attempts (South African National Injury

Mortality Surveillance System, 2005, cited in Sookha, 2005). However, it is difficult to generalize from a psychiatric sample to a general population, because suicide attempts are more prevalent in the presence of psychopathology (Scocco et al., 2000).

In line with the gender trends discussed above, female parasuicides outnumber those of males – in a study of 19,711 parasuicide patients seen at Addington Hospital, Durban, in 1994, 27.8% of all parasuicides were by women aged 20-29, whereas only 13.2% of all parasuicides were by men in this age group (Bosch, McGill & Noor-Mohammed, 1995). Of those aged 19 and younger, female parasuicides constituted 20.5% of the sample, while male parasuicides accounted for 9%. (Taken together, 70.5% of all the parasuicides were by people younger than 29, providing another indication of the vulnerability of adolescents and young adults to suicide) (Bosch et al., 1995).

To date there is very little research into suicide rates and suicidal behaviour among university students in South Africa. In a study at the University of the Transkei, Mayekiso and Ngcaba (2000) found that 10.1% of first year students had attempted suicide and 25.7% had thought about suicide. Peirson (2001) reported that 6.2% of a sample of 113 undergraduate psychology students at the University of the Witwatersrand had previously made a suicide attempt, while 30.97% had thought about suicide.

This review suggests that suicide is a serious problem in South Africa, and that young people are particularly at risk. The risk factors for suicidal behaviour in young adults and adolescents will now be examined.

1.2 Risk factors in young adults and adolescents

Suicidal behaviour is a very complex and multifaceted phenomenon, which is never the result of one factor or event, but is instead usually attributable to the complex interaction of a wide variety of variables – psychological, social, cultural, biological and personal philosophical / existential – with particular interrelationships varying from one individual to another (Leenaars & Domino, 1993; Rudd, 2000; World Health Organization [WHO], 2000).

The most frequently mentioned risk factors for adolescents and young adults include previous suicidal behaviour, depression, and substance abuse (APA, 2004; Gould & Kramer, 2001, cited in Greening & Stoppelbein, 2002). Other studies highlight hopelessness (Beautrais, 2000; Joiner & Rudd, 1995; Mazza & Reynolds, 1998), interpersonal losses and poor problem-solving ability (Beautrais, 2000; Greening & Stoppelbein, 2002), negative causal attributional styles (Joiner & Rudd, 1995; Kraaij, Garnefski, de Wilde & Dijkstra, 2003), external locus of control (Beautrais, 2000), negative life events and low social support (Mazza & Reynolds, 1988), family psychopathology including family history of suicidal behaviour (APA, 2004), familial dysfunction (Adams, Overholser & Lehnert, 1994, cited in Johnson & al, 2000), exposure to childhood physical or sexual abuse (Beautrais, 2000) low socioeconomic status (Gunnell, Peter, Kammerling and Brooks, 1995, cited in Beautrais, 2000), and availability of the means, in particular firearms and potentially lethal drugs (APA, 2004).

The Spring 2000 National College Health Assessment Survey of 15,977 students in the USA revealed that hopelessness, depressed mood, sexual identity problems and relationship difficulties increased the risk of suicidal behaviour, and that students in their early years of university were also more vulnerable. However, many students did not consider suicide and even fewer attempted it, despite depressive symptoms (Kisch et al., 2005).

In South Africa, the increase in suicide rates has been attributed to stress, urbanization, disintegration of the family and HIV/AIDS, with those diagnosed 36 times more likely to commit suicide compared to the general population (Schlebusch, 2005, cited in Sookha, 2005). AIDS orphans struggling to cope with the responsibilities of heading up a household are particularly vulnerable. The source of stress is considered to be due in part to people's inability to cope with the massive sociopolitical changes that have occurred in South African society (Schlebusch, 2005, cited in Horner & Fredericks, 2005).

Students experience a number of stressors, for example: "HIV/AIDS … financial exclusions, finding employment, security, high failure rates and tuition fees, language barriers, bursaries and recreation" (University of the

Witwatersrand ANCYL spokesman, Zizi Kodwa, cited in Munshi, 2005). Schlebusch (2003, cited in Padayachee, 2003b) pointed out that Black adolescents experience considerable stress because, with better access to education, they are under pressure by their families and communities to succeed but often have insufficient finances to fund their post-school education, and are faced with considerable academic competition and no guarantee of employment once they have graduated. This leads to hopelessness and, for some, suicidal ideation.

Of these many factors that may play a role in the etiology of suicidal behaviour, several inter-related variables emerge as relevant to this study because they are also areas that are influenced by religious belief – coping and problem-solving, depression, hopelessness, helplessness and control issues. These areas will be examined in more depth in paragraph 4 of this chapter. First, however, sociological and psychological research into the relationship between religion and suicide will be reviewed.

2 Religion and suicide – Sociological and Psychological Research

2.1 Sociological research on religion and suicide

2.1.1 Religious integration theory

The earliest contribution to the field of suicide, by Emile Durkheim ([1897] 1966, cited in Stack & Wasserman, 1992) at the end of the 19th century, proposed that subordination of the individual to group life (e.g. to a political cause or religion) provides a sense of purpose through serving others, which puts personal difficulties into perspective. He suggested that Catholics commit suicide less frequently than Protestants because they are more socially integrated. He also referred to religion's role in regulating social behavior and attributed the Catholic-Protestant difference in suicide rates to the direct and overt theological sanctions against suicide within Catholicism and his evaluation of Protestants as much more individuated and having a tradition of free enquiry (Pescosolido & Georgianna, 1989; Stack, 1992).

Research has provided evidence for the influence of religious integration – for example, it has been suggested that Islam is a highly integrated religion that

expects of its adherents a daily ritual of prayer and the submission of the self to the collective will (Simpson & Conklin, 1989). In a cross-national sample of 71 nations, Christianity did not appear to lower suicide rates, but there were significantly lower rates of suicide among Muslims, even when economic, social and demographic modernity factors were controlled for (Simpson & Conklin, 1989). Religious homogeneity in a community (the extent to which community residents adhere to a single religion or a small number of faiths) has been inversely associated with suicide rates (and the effects persist despite controls for established covariates of suicide rates) (Ellison, Burr & McCall, 1997). There is also research evidence for religion's role of regulation, for example lower rates of suicide among African Americans has been attributed to condemnation of suicide by African American pastors (Early, 1992, cited in Stack & Wasserman, 1995). The impact of secular versus religious education on suicidal ideation and attitudes towards suicide in Turkish adolescents revealed that suicidal ideation was more frequent in adolescents undergoing secular education than in those in religious education, and that suicide was less acceptable in the latter group (Eskin, 2004).

However, the Catholic-Protestant distinction no longer appears to hold true – research has shown that the highest rate of suicide in Europe is in Catholic Hungary, and that Catholic France and Poland have between two and three times the suicide rate of Protestant Britain (Pritchard, 1995). It has been suggested that Catholicism has become more questioning and less integrated, while there is increasing diversity in Protestantism, and therefore Protestants may not differ significantly from Catholics, as was the case when Durkheim formulated his theory (Pescosolido & Georgianna, 1989; Stack, 2000). In addition, the discrepancy in Catholic versus Protestant suicide rates in some countries may be due to inaccuracy of suicide statistics (Redfield Jamison, 2001). It has been suggested that religious affiliation may influence the cause of death recorded by coroners and medical examiners, particularly where suicide is still regarded as a source of shame to the families of suicide victims. For example, in Canadian studies, Catholic medical examiners attributed fewer deaths to suicide than non-Catholics (Jarvis, Boldt & Butt, 1991, in Redfield Jamison, 2001). In a review of causes of death and data on religious affiliation in the Netherlands from 1905-1910 (roughly contemporaneous with Durkheim's formulation of religious integration theory),

it was found that the Catholic-Protestant differential in suicide rates could be explained by the practice of categorizing as ‘sudden deaths’ or ‘deaths from ill-defined or unspecified cause’ a large proportion of deaths among Catholics which would have been categorized as suicides had they occurred among Protestants (Van Poppel & Day, 1996).

Zilboorg (1937) pointed out that the difficulty with research that indicates that there is lower incidence of suicide amongst Muslims, Jews and Catholics than among Protestants and Buddhists is that these statistics tend to be interpreted to suggest that religious beliefs either deter or stimulate suicide ideation.

> This point of view is not well founded for it is impossible to be certain which is the cause and which the effect. It is quite thinkable that the self-destructive drives in a given group are responsible for the creation of a given religious orientation rather than the reverse (Zilboorg, 1937, p. 68).

By way of example, Zilboorg (1937) cited the Hindu whose propensity towards death may have led to the creation of the ideal of Nirvana.

2.1.2 The religious commitment perspective

The next theoretical approach linking religion and suicide proposed that commitment to a few core religious beliefs may provide a shield against suicide (Stack, 1983, cited in Stack & Wasserman, 1992). For example, the belief in an afterlife may help people to see current life difficulties as transient; suffering itself may be viewed as having a spiritual purpose; and a belief in a responsive God, who hears prayers and watches over our sufferings may make them more bearable. Research within this theoretical domain focused on religiosity, which was operationalised in terms of church attendance, religious book production (as a percentage of all books) and church membership rates. The outcomes of this research are not conclusive, since religious commitment and family integration are also indicators of a more general phenomenon of collectivism; however the research is in general supportive of the proposition that religious commitment lowers the suicide rate (Stack, 2000). For example, in a study of the associations between suicide rates and an index of religiosity in 26 American and European countries with a Judaeo-Christian tradition, there were negative associations between suicide rates and four religious variables (affiliation, religious upbringing, frequency of church attendance and questions relating to personal beliefs and practices). Socioeconomic conditions were a potential confounding variable, and when

these were controlled for, the overall association of male suicide rates with religiosity disappeared. The associations with female suicide rates continued to be significant however (Neeleman & Lewis, 1999).

Associated with the religious commitment approach is research based on Masaryk's ([1881] 1970, cited in Clarke, Bannon & Denihan, 2003) argument that increased suicide rates were associated with weakening religious faith and observance. In an Irish study comparing national suicide rates in 1999 with the results of a national survey on religious belief and practice, suicide was more frequent in rural areas where, unexpectedly, religiosity was also higher. However, the authors (Clarke et al., 2003) pointed out that in rural areas, the male suicide rate was about four times higher than that for females, and suggest that a decline in religiosity in men may be an important risk factor.

2.1.3 The religious networks approach

A third stream of research emphasizes the importance of the social bonds in religion that mediate the religion-suicide link. For example, more recent research on Durkheim's integration theory has shown that other social contextual factors such as urban environment and population density interact with religious affiliation to produce differential suicide rates (Pescosolido, 1990, cited in Stack, 2000). Pescosolido and Georgianna's (1989) network theory suggested that religions with nonhierarchical structures, in which teachings are in tension with broader societal culture and that are conservative, foster the development of more intense social bonds or networks in certain religious and urban contexts, which in turn tends to lower suicide rates (Stack & Wasserman, 1992). Moreover religious groups located in their 'historical hubs' are less accepting of suicide than those living outside of that hub – for example, Catholics living in the southern states of the USA are more vulnerable to suicide because they lack the social networks of Catholics living in the northeast region (Pescosolido, 1990, cited in Greening & Stoppelbein, 2002).

The key element of this approach, however, is that religion has the greatest protective effect when adherents report a greater average number of friends and relatives within the same religion, when they attend religious services regularly, and where they do not merely identify themselves as having a

religious affiliation, but actually become part of a church or temple community (Pescosolido & Georgianna, 1989; Stack & Wasserman, 1992, 1995). Integrating this with Durkheim's approach, a religious network may therefore be a source of integration (providing social and emotional support to its members), but also of regulation (guiding behaviour through teaching and monitoring). When religious networks are moderately or strongly integrated and regulated, members will be protected from self-destructive behaviour, but when they become out of balance in these two areas, the potential for an individual to act on suicidal impulses in a crisis becomes greater (Pescosolido & Georgianna, 1989)

Therefore, in general, sociological research provides evidence for religion's buffering effect on suicidal behaviour, measured in terms of the rate of completed suicides. It should be noted however that it is difficult to infer from this research the impact of religion on thinking about suicide, in other words suicidal ideation.

2.2 Psychological research on religion and suicide

While sociological explanations of suicide are at the aggregate or group level and emphasize the critical role played by societal and cultural variables (Rudd, 2000), psychological explanations locate sources of suicide in the individual (Stack, 2001, cited in Laubscher, 2003). Psychological research focused on religion[1] and suicide has provided mixed support for the contention that religion protects against suicidal behaviour. Significantly, while psychiatric literature suggests that religion and spiritual issues are significant and meaningful to patients with mental disorders, particularly when they confront the issue of suicide, scales assessing suicidal risk almost entirely fail to consider religion and spirituality (Kehoe & Gutheil, 1994).

2.2.1 Religion as a protective factor for suicide

In general, research literature suggests a negative relationship between religiosity and suicidality (Koenig, 2001/2a). In the USA, most religious

[1] The terms 'religion', 'religious belief', 'religious involvement' and 'religiosity' appear to be used almost interchangeably in the literature, despite the fact that the latter is defined as affected or extreme piety (Collins, 1988). See Appendix A for definitions of religion, spirituality and faith, and how these constructs have been operationalized in research.

groups condemn suicide and research indicates that suicide approval (perceiving suicide as justifiable in certain circumstances) is negatively related to religious indicators such as denomination, fundamentalism, self-reported religiosity, belief in a Supreme Being, and frequency of church attendance (Agnew, 1998). In a recent large study in the USA, it was found that people who do not attend religious services are four times more likely to kill themselves (Nisbet, Duberstein, Conwell & Seidlitz, 2000). Furthermore, in a review of 68 studies on the relationship between religion and suicide, 84% found lower rates of, or more negative attitudes towards, suicide in the more religious (Koenig, 2001/2a)[1]. In a study of end-of-life despair in terminally-ill cancer patients, greater spiritual well-being was associated with less desire for a hastened death, and lower levels of both hopelessness and suicidal ideation, even after controlling for the effect of depressive symptoms, but in this study, finding or sustaining meaning during terminal illness appeared to be more important than religious faith (McClain, Rosenfeld & Breitbart, 2003).

The protective effect of religion with regard to suicidal behaviour is also found in non-Western cultures. More religious Muslims in a community of Afghan refugees were less vulnerable to suicidal attempts or plans, even when the wish for death was high and the fear of death was low, thus indicating that religion could be a deterrent factor against suicidal ideation among Muslim depressed patients (Jahangir et al., 1998). In a sample of American Indian tribal members, commitment to cultural spirituality, measured by an index of spiritual orientations, was significantly associated with a reduction in suicide attempts (Garroutte, Goldberg, Beals, Herrell & Manson, 2003).

In student and adolescent studies, this inverse relationship between religiosity and suicidal behaviour and attitudes towards suicide is also evident (Zhang & Jin, 1996). A study of 205 college students at a midwestern university in the USA showed that as religiosity and certain fears of death increased the acceptability of suicide decreased (Hoelter, 1979, cited in Hood et al., 1996). In adolescents, religious commitment is significantly related to reduced suicide risk (Nonnemaker, McNeely & Blum, 2003; Stein, Witzum, Brom, & DeNour, 1992, cited in Larson & Larson, 2003), and in fact religiousness is

[1] In 9 of the remaining 11 studies there was no relationship between religion and suicide, and two studies reported mixed results (Koenig, 2001/2a).

the second strongest inhibitor of suicide ideation and attempts (after gender, girls being more likely to attempt suicide than boys) (Donahue & Benson, 1995). Adolescent suicide is associated with depression, and research shows that frequent church attendance and high spiritual support were associated with lower rates of depression in an adolescent sample (Wright, Frost & Wisecarver, 1993, cited in Larson & Larson, 2003). Greening and Stoppelbein (2002) found that orthodoxy – commitment to core life-saving beliefs (such as 'I believe in life after death') – was significantly negatively associated with suicidal ideation after controlling for other significant factors, including depression (thus giving support to Stack's (1983) theory of religious commitment, outlined in paragraph 2.1.2 of this chapter). In a survey of 100 senior secondary school pupils in Umtata South Africa, 25% cited fear of punishment from God as a factor that would prevent them from committing suicide (Mayekiso, 1995). Finally, in a Canadian study religious detachment among the young was associated with increased proneness to suicide (Trovato, 1992), and Neeleman, Wessely and Lewis (1998) noted that the rapid secularization of the young in the US means that the protective effect of religious influences is less prevalent, and that this may explain the rising suicide rates among young people.

Religion might help to prevent suicide by improving self-esteem (through feeling loved and valued by God), and increasing personal accountability or a sense of responsibility to God (Larson & Larson, 2003). Also most religions espouse a belief in the sacredness of life (Sayar, 2002). Social support has been shown to be an independent predictor of suicidality in adolescents (Clum et al., 1997) and the religious networks theory (in paragraph 2.1.3 of this chapter) highlights the value of social ties in religion. However, research with older adults shows that while participation in religious activities reduces suicide risk, visiting or talking with friends or relatives does not significantly reduce risk, so that it is not merely the social contact inherent in participation in religious activities that reduces risk, but something more intrinsic in religion or spirituality (Nisbet et al., 2000).

Viktor Frankl (1967) is the psychological theorist who has had most to say about both suicide and religion. He developed his ideas about suicide while incarcerated in Nazi concentration camps, where he discovered that a suicidal individual's will to continue living depended on whether the individual

possessed a sense of meaning in life – “despair is suffering without meaning” (Frankl, 1997, p. 133). He termed the absence of a sense of life meaning an “existential vacuum” (Frankl, 1967, p. 31) that increased vulnerability to suicidality, and blamed the prevalence of suicide among young people on a “spreading existential frustration” (Frankl, 1997, p. 99). Frankl (1967) concluded that religiosity helped many concentration camp inmates to preserve their humanity and find meaning in life.

Research has shown that religious faith can engender a sense of meaning and purpose in life, and it should be noted that:

> Religious beliefs, in and of themselves, do not hold psychogenic value unless they provide a sense of existential well-being, unless they help individuals find some meaning and purpose in their existence, and unless they help people make sense of their past, present and future (Davis et al., 2003, p. 363).

In a study of adults 18 years and older, religious salience was significantly positively associated with a sense of meaning and purpose, and controlling for the impact of the other religiosity variables (e.g. church attendance and orthodoxy) did not attenuate the effect of religious salience (Petersen & Roy, 1985, cited in McFadden, 1995). The relationship between religiosity and psychological well-being can be mediated by a sense of life meaning, and religion is an important vehicle for the development of systems of meaning, although this can also be derived from other sources (Chamberlain & Zika, 1992). A sense of life meaning can also protect against the negative effects of emotion-oriented coping (involving avoidance) on suicidal ideation (Edwards & Holden, 2001). However, research suggests that for religiously-oriented constructions of meaning to have a positive effect on well-being, they need to be positive and hopeful, such as ‘I will become a stronger person because of this’ or ‘With God’s help, I will transcend this experience’ (as opposed to ‘I must have done something bad to deserve this’) (Dull & Skokan, 1995).

To summarise, there are several studies that suggest that religiosity protects individuals from suicidal behaviour. Religion might help to prevent suicide by improving self-esteem, increasing a sense of responsibility to God, emphasising the sacredness of life, and providing supportive social networks.

Frankl (1967) highlighted the importance of life meaning, which could be found via religious faith, and described existential despair as a form of spiritual distress that may lead to suicidal behaviour. Research has demonstrated that religion can offer a sense of meaning and purpose, and this can act as a buffer between coping style and suicidal manifestations.

2.2.2 Religious strain and suicidal behaviour

A more recent trend in research into religion and suicidality reveals that individuals may experience both comfort and strain in their religious lives. Exline et al. (2000, p. 1482) refer to a number of studies that show that "religious life … carries considerable potential for strain", for example, seeing God as distant or punitive, experiencing doubt or conflict over religious issues, fearing eternal damnation, or viewing illness or deaths as punishment for sins. The focus on sinfulness in religions such as Christianity and Judaism may foster guilt, which in extremes may become "pathological … (driving) individuals toward self-destructive behaviors to rid themselves of these painful feelings" (Koenig, 2001/2b, p. 210). Religion can also foster shame (Koenig, 2000) – for example, religious people may have high moral expectations and condemn themselves or others for having family or other problems that they do not expect religious people to have (Strawbridge, Shema, Cohen, Roberts & Kaplan, 1998). Religious strain therefore often involves feelings of guilt, shame or alienation from God, and the chronic self-blame and hopeless attributions that characterize depression may result in negative events being interpreted as punishment or evidence that personal sins cannot be forgiven.

To illustrate how religious strain can be linked with suicidal behaviour, a study of 200 college students and a clinical sample of 54 individuals seeking outpatient psychotherapy demonstrated that religious strain was associated with greater depression and suicidality, regardless of religiosity levels or the degree of comfort found in religion (Exline et al., 2000). Religious strain is therefore a potentially important indicator of psychological distress and may play a role in suicidal ideation.

In research that did not focus on religion but did explore the role of shame in suicide (Savarimuthu, 2002), it is argued that unacknowledged shame can be

devastating to the social bond and thereby to the self, and that consequent suicide is a rupture in one's social relatedness. Bearing in mind that participation in religious activities can be a source of social support, if shame causes a believer to avoid going to church for example, the lack of social relatedness that this might provide may make him or her more vulnerable to suicidal behaviour.

In Laubscher's (2003) study into the dramatic increase in suicide among young, professional, Coloured men in Paarl, interviews with family members suggested that the cause of the suicides was, among others, the displeasure of a vengeful God, or the unfathomable will of a loving God. He attributed the increase in suicides to the gradual decline of cultural certainty and identity since the advent of democracy, including the waning of the cultural and religious stigma associated with suicide. He also pointed out how the role of the church changed from the apartheid era (when it played a pivotal role in galvanizing and directing anti-apartheid efforts, and was a source of solace and security because of its communal nature) to its current focus on "the very lonely and individual task of religious salvation" (Laubscher, 2003, p. 140). He noted that there was a diminishing church involvement in those who committed suicide, perhaps because they were "unable to glean coping support from the church in community, and unwilling to engage with the church on religious terms" (Laubscher, 2003, p. 140).

Fear of death when contemplating suicide may vary according to religious belief, with more religious people either having less fear of dying because of belief in an afterlife, or more fear of dying by their own hand and risking incurring God's wrath. A review of the literature on the relationship between religious commitment and death anxiety (Gartner, Larson & Allen, 1991, cited in Pressman, Lyons, Larson & Gartner, 1992) indicated that six studies found less fear of death in religiously committed subjects, while three studies found more fear of death in the religiously committed, with a further five studies finding no relationship between religious commitment and death anxiety. In the Exline et al. (2000) study, suicidality was associated with religious fear and guilt, particularly with belief in having committed an unforgivable sin.

Therefore, religion has been shown to be both a protective and a risk factor for suicidal behaviour, although there is less evidence for the latter. Unfortunately, there is insufficient psychological research on the impact of religion on suicidal behaviour to provide further clarity on these mixed findings. However, broader research on the impact of religion on psychological functioning also provides evidence of mixed outcomes, and will be reviewed in the next section.

3 The Impact of Religion on Psychological Functioning

People engage with religion to meet a wide variety of needs, including comfort, meaning, community and connection with a sacred transcendent Being (Pargament & Park, 1995). In addition, there is a wide diversity of norms of religious practices, especially between different religions, but also within a religion such as Christianity. It is clear, therefore, that religion is a multifarious concept and cannot be reduced to simple definitions: "Religion is a multidimensional and multilevel construct that is manifested in a diversity of ways at both sociological and psychological levels of analysis" (Paloutzian & Kirkpatrick, 1995, p. 4). Similarly, psychological functioning is itself a complex construct and this adds further complexity to any quantitative research into the relationships between religion and psychological functioning or mental health (Paloutzian & Kirkpatrick, 1995).

Because of the paucity of psychological research into the relationship between religion and suicidal behaviour, referred to in the previous paragraph, research on how religion impacts on psychological functioning in general will now be reviewed. In paragraph 4 of this chapter, the specific relationship between religion and several vulnerability factors for suicidal behaviour in adolescents and young adults – coping, depression, hopelessness and helplessness – will be explored in more detail.

Psychological theorists have long conceptualized religion as either 'bad' or 'good' for people. James (1902, cited in Hood et al., 1996) differentiated a 'sick-souled' religion from a 'healthy-minded' one. Freud (1927, cited in Paloutzian & Kirkpatrick, 1995) saw religion's value to society because of its

capacity to limit destructive instincts, but at an individual level he described it as “a yoke that must be shaken off” (Freud, 1927, cited in Dull & Skokan, 1995, p.52). Fromm (1950, cited in Pargament et al., 1988) distinguished ‘authoritarian’ from ‘humanistic’ religion. Allport and Ross (1967, cited in Pargament, 1997) developed a conceptualization of religion as being either extrinsic versus intrinsic in motivation or orientation. Intrinsic motivation suggests religion as an end in itself, where the individual lives his or her religion, is committed to certain beliefs and has internalized certain beliefs. Extrinsic motivation suggests religion as a means, i.e. used by the individual to gain some end such as security, comfort, status or social support [1]. Intrinsically-oriented religiosity has been positively associated with indicators of religiosity, for example church attendance (Ventis, 1995), higher levels of spiritual, religious and existential well-being, and lower trait anxiety in male at-risk adolescents (Davis, Kerr & Robinson Kurpius, 2003), self-actualization and self-esteem (Watson, Morris & Hood, 1987), and freedom from worry and guilt, personal competence and control, unification and organisation of personality, and appropriate social behaviour (Ventis, 1995). However, extrinsic religion tends to have a predominantly negative relationship with indices of psychological functioning (Ventis, 1995).

Reviews of earlier research into the relationship between religion and psychological functioning produced mixed and ambiguous findings (Bergin, 1983, cited in Schumaker, 1992)[2]. This was attributed to the multidimensional nature of religion, but the following possible reasons have also been posited: problems in how the constructs of religion and psychological functioning or well-being are measured (Chamberlain & Zika, 1992), the confounding effects of response biases such as social desirability, suppressor effects of inconsistent mediators, and the possibility that religiousness and mental health are unrelated (Hathaway & Pargament, 1990).

[1] Batson, Schoenrade and Ventis (1993, cited in Pargament, 1997) proposed a third orientation, religion as quest, a searching approach to religion in which the individual searches for truth and meaning in life, and this search is marked by “cognitive complexity, tentativeness and doubt” (Batson et al., 1993, quoted in Ventis, 1995, p. 136). It should be noted that several researchers have pointed out that these three orientations are not mutually exclusive, but are dimensions that vary independently so that it is possible for an individual to gain a score on all three scales (Pargament, 1997; Ventis, 1995).

[2] In this review, 77% of the research outcomes showed no significant relationship between religion and optimal psychological functioning, 17% had a positive relationship, while in 6%, the relationship was negative (Bergin, 1983, cited in Schumaker, 1992).

3.1 Salutary effects of religion on psychological functioning

A recent comprehensive and systematic review of over 630 data-based research reports spanning a century of research has examined the relationship of religion and psychological well-being, hope and optimism, purpose and meaning, depression, anxiety, psychotic symptoms and disorders, social support, substance use, other behaviours that affect mental or social functioning (Koenig, 2001/2a) and physical health and longevity (Koenig, 2001/2b). Studies that report a positive relationship between religion and psychological functioning far outnumber those without any relationship or with a negative relationship [1].

Harold Koenig (2001/2a) has provided the most comprehensive explanation of the positive association between religiousness and psychological functioning or well-being as follows:

- Religious belief provides meaning for both positive and negative experiences;
- Religious beliefs and practices can evoke positive emotions that counter the stresses of daily life, and also provide alternative sources of pleasure that deflect attention from self-destructive behaviours;
- Religious rituals provide comfort and meaning in major life transitions, such as death;
- Religion prescribes support and care for others, which helps to build community and extended social networks; and
- Religion is an agent of social control, providing proscriptions against behaviours (such as excessive alcohol use) that negatively affect people or their social environments.

Ellison (1998) and Dull and Skokan (1995) asserted that religion can build psychological resources such as self-esteem, personal efficacy, self worth and coping, and Larson and Larson (2003, p. 48) pointed out that religious beliefs that focus on positive values such as “compassion, caring,

[1] See Appendix B for a more detailed description of the results of this review and other research showing a positive relationship between religion and psychological functioning.

forgiveness, transcendent meaning, and hope … provide an optimistic worldview along with a greater sense of well-being".

3.2 Negative impact of religion on psychological functioning

Despite the above, a perception has arisen that religion can be bad for well-being and optimal psychological functioning, due at least in part to criticisms by, among others, Freud (1927, quoted in Hood et al, 1996, p. 407) that "religion is comparable to a childhood neurosis", and the founder of rational emotive therapy, Albert Ellis (1980, quoted in Schumaker, 1992, p. 16), that: "the less religious they [patients] are, the more emotionally healthy they will be". Religion has been described as "restrictive, negativistic and ritualistic" (Gorsuch, 1995, cited in Paloutzian & Kirkpatrick, 1995, p. 9); it has been misused historically to justify anger, hatred, violence, aggression and prejudice; and it has fostered rigidity and guilt (Larson & Larson, 2003).

However, many of the studies that show a negative relationship between religiosity and psychological functioning are older cross-sectional studies of college students and adolescents, involve subjects selected on the basis of convenience, fail to take into account covariates, or have serious methodological problems (Koenig, 2000). Davis et al. (2003) point out that research findings on the relationship between religiosity and indices of psychological functioning will differ depending on how the spiritual variable is defined:

> If religion is defined by the 'sinners-in-the-hands-of-an-angry-God' philosophy, individuals will tend to have poorer mental health outcomes. In contrast, if religion is defined by a 'loving God' orientation in which God is seen as a compassionate partner who works with people to provide guidance and support, individuals will tend to experience less anxiety (Davis et al., 2003, p. 357).

Nevertheless as the review by Koenig (2001/2a) indicated, not all the research into the effects of religion on psychological functioning demonstrates positive effects. Researchers have also written about religious distress or strain (Exline et al., 2000; Larson & Larson, 2003), and how religion can fail

people (Pargament et al., 1988)[1]. However, it should be noted that religious strain is not necessarily the source of psychological distress, but may instead be a result of it (Exline et al., 2000). These authors also pointed out that not all religious strain is destructive. Development towards spiritual maturity may involve periods of struggling, dark periods in one's relationship with God, 'Godly sorrow' in response to sins, and loneliness: "Growth results not from a lack of suffering but from a constructive response to it" (Exline et al., 2000, p. 1494).

To summarise, research suggests that in the main religion is associated with optimal psychological functioning, but in some cases, religious strain or spiritual distress may lead to more negative outcomes. The relationship between religiosity and the risk factors for suicide in young adults – namely coping and problem-solving, depression, hopelessness, helplessness and control – will now be examined in more detail.

4 How Religion may impact on the Risk Factors for Suicide in Young Adults

4.1 Coping, problem-solving and suicide – the role of religion

4.1.1 Coping, problem-solving and suicide

Coping is described as "a search for significance in times of stress" (Pargament, 1997, p. 90) and consists of "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141). It is a multidimensional concept influenced by contextual, environmental and personal factors (Lazarus & Folkman, 1984).

Suicidal ideation has been defined as "a form of mild suicidal behaviour, a predictor of suicidal behaviour, a clinical phenomenon in its own right, expressing disgust at life or as a reaction to severe burdens of life" (Linden et al., 2003, p. 17). Stress is therefore a risk factor for suicidal ideation, and

[1] See Appendix B for a review of research that illustrates a negative association between religiosity and optimal psychological functioning.

predictive models for suicidal ideation tend to focus on the role of negative stress and absence of coping resources (Linden et al., 2003). However, Josepho and Plutchik (1994) noted that not all individuals who are exposed to the same stressors become suicidal, suggesting that it is the way of coping with stress that may determine suicidality.

Thus coping style may act as a mediator between a stressful situation and a negative outcome (Lazarus & Folkman, 1984), and this includes the outcome of suicidal behaviour (Josepho & Plutchik, 1994). Suicidal individuals often display cognitive rigidity – they are unable to generate alternate solutions to problems (Greening & Stoppelbein, 2002; Schotte & Clum, 1987, cited in D'Zurilla et al., 1998), and their coping behaviour becomes increasingly limited to avoidant and emotion-focused strategies (Edwards & Holden, 2001; Josepho & Plutchik, 1994). For example, in a study exploring the relationship between problem-solving abilities, hopelessness and depression, and suicidal risk (D'Zurilla et al., 1998), both college students and psychiatric inpatients who scored high on a measure of suicidal probability tended to report negative emotional responses to problems and a problem-solving style characterized by avoidance. Hopelessness and depression were also related to suicidal risk, although to a lesser extent than problem-solving deficits. D'Zurilla et al. (1998) proposed a prediction model of suicidal risk in which problem-solving deficits might increase the severity of hopelessness and depression, which in turn increase suicidal risk.

In summary therefore, coping and problem-solving approaches that are emotion-focused and avoidant have been associated with suicidal behaviour. Religion is often used in coping and problem-solving, and its impact on these processes will now be explored [1].

4.1.2 Religious coping

Religion, which may be a significant element of a person's general orienting system, can be used in the coping process (Koenig, 1992; Pargament, 1997), including problem-solving (Pargament et al., 1988). Religious coping, as it is termed, is multi-purpose (for comfort, personal growth, intimacy or meaning)

[1] Since coping has been extensively researched within the field of psychology, the use of religion in coping is a focus area where the two fields can be examined in combination with each other.

and multiform (passive, active, personal, interpersonal, problem-focused or emotion-focused). It can be helpful, harmful or irrelevant to individuals faced with stressful life situations (Pargament, 1997).

As examples of the benefits of religious coping, using religion to cope with stress was positively associated with college adjustment among new students (Maton, 1989, cited in Hood et al., 1996), and religion was shown to provide emotional support for college students and help them redefine their problems (Newman & Pargament, 1990, cited in Hood et al., 1996). Religious coping has been associated with a reduction in the affective symptoms of depression (loss of interest, feelings of worthlessness, withdrawal from social interaction, loss of hope and cognitive symptoms) (Larson & Larson, 2003). Religious coping is also often used by mental health patients in dealing with their symptoms (Tepper, Rogers, Coleman and Maloney, 2001, cited in Larson & Larson, 2003) [1].

Kenneth Pargament (1997)[2] has done extensive research on religious coping styles, which moderate the complex association between stress, religiosity and psychological adjustment. His basic tenet is that religion may play a role in the search for significance in stressful times. Religion influences the orienting systems that are brought into the coping process, and therefore religion can be seen as a "cognitive schema … a mental representation of the world that helps us to filter and make sense of the massive amounts of stimulation we encounter" (Pargament, 1997, p. 193). Specific coping methods show how "faith comes to life in specific encounters … To put it another way, situation-specific coping activities serve as bridges or mediators

[1] In this study of more than 400 mental health outpatients, 80% used a religious belief or activity to help them to cope, 65% reported that religion helped them to a large or moderate extent in coping, and 48% indicated that spirituality or religion became even more important to them when their symptoms worsened. Furthermore a greater number of years of religious coping and the proportion of coping time spent drawing on religious resources were associated with less severe symptoms and better overall functioning. Prayer was the most frequently used form of religious coping (59%), followed by attending religious services (35%), worshipping God (35%), meditation (33%), reading scriptures (30%) and meeting with a spiritual leader (15%) (Tepper et al., 2001, cited in Larson & Larson, 2003).

[2] Relatively little has been written on the use of religion in coping, and Pargament's (1997) "The Psychology of Religion and Coping" is a crucial text in this area. It is acknowledged that this source is eight years' old, but the Reference list will indicate that Pargament and his colleagues have continued to publish research on religious coping up until the present. There is clearly a need for more research in this area.

between the orienting system and the outcomes of negative situations" (Pargament, 1997, p. 283).

Pargament (1997) elaborated on Lazarus and Folkman's (1984) transactional model of coping, claiming that religion can be part of each of the stages of the coping process. He also noted that religion has a bi-directional role, in that it can contribute to the coping process, but can also be a product of coping, for example increased faith after emotional problems.

Why religion is a resource used in coping is explained by Pargament (1997) in two ways. Religion is a relatively available part of the individual's general orienting system, and it is a relatively compelling way of coping compared to the alternate resources available to the individual. However as this suggests, even religious people will also use nonreligious coping methods, sometimes together with religious ones.

Evidence suggests that "religion complements nonreligious coping, with its emphasis on personal control, by offering responses to the limits of personal powers" (Pargament, 1997, p. 310). Stressful circumstances tend therefore to foster more focus on religion by underscoring the precariousness of existence and the limits of individuals' personal and social resources (Pargament, 1997), and research shows that religion is resorted to more frequently in coping with threat situations than in losses, which require acceptance. Situations that challenge people call upon personal effort and resourcefulness and are seen as most controllable; therefore religious coping is used least frequently in these situations (Bjorck & Cohen, 1993, cited in Hood et al., 1996). Religion is particularly important in dealing with death and other devastating, uncontrollable events (Hood et al., 1996).

Religion thus becomes more compelling in those circumstances where individuals become aware of their limitations. Two groups that are particularly sensitive to human frailties and limitations are people confronting the boundary conditions of existence (when significant events or crises confront and challenge them and push them beyond their personal and social resources) and people for whom religion is a more fully integrated part of their lives (Pargament, Tarakeshwar, Ellison & Wulff, 2001). These qualities are more likely to be found in the less powerful in society – the poor, elderly,

minorities, women, and the disenfranchised – who are often challenged with a disproportionate share of major life crises and injustices that highlight their human limitations (Pargament, 1997). Thus individuals who are "more consistently aware of their own limitations and more committed to the search for a connection with the forces that transcend their immediate worlds may find the spiritual a compelling part of virtually any situation, ordinary as well as unusual" (Pargament, 1997, p. 162).

Pargament (1997) pointed out that there are times when religion fails to provide compelling solutions to problems but is used in coping anyway because there are few alternatives (e.g. participating in religious rituals in bereavement without necessarily being committed to the underlying system of belief). However, there may also be situations in which religious solutions to problems seem inadequate, creating the possibility that individuals will turn away from religion – religious disenchantment and detachment are also possible outcomes of crises and transitions. Pargament (1997) explained this by pointing out that the coping literature demonstrates that events do not necessarily predict behaviour, but rather that this depends on the relationship between the event and what the individual brings to it. Therefore the religion and coping connection cannot be understood through the person, the situation, or the context alone, but rather in the interplay between these factors.

Criticisms of the use of religion in coping have been based on arguments that it is used in ways that do not promote optimal psychological functioning, for example using religion as a defence, to reduce tension, as a form of denial, and by promoting passivity and avoidance. Pargament and Park (1995) have argued that these assumptions are stereotypical and that while religion might serve all of these ends, religious coping is a much more multidimensional construct and serves many purposes. Thus positive reconstructions of negative events are not necessarily denial but may help people to grow through the events, and while some forms of religious coping are passive and avoidant, religion can also be expressed in far more active approaches. The authors argued therefore that religion is not inconsistent with an internal locus of control and that in more cases than not measures of religiousness are linked to active rather than passive approaches to coping.

With regard to this dimension of active versus passive coping methods, Pargament et al. (1988) outlined three distinctive coping approaches varying on two key dimensions of problem-solving, namely locus of responsibility for problem-solving and level of control or activity in the problem-solving process:

- The *self-directing* approach, wherein the individual relies on him-/herself in coping and problem-solving, rather than on God.
- The *deferring* approach, in which the responsibility for coping and problem-solving is passively deferred to God. This style is characterized by dependence on external authority, rules and beliefs in order to meet particular needs (and is therefore associated with extrinsic religiousness).
- The *collaborative* approach, in which the individual and God are both active partners working together to solve problems. This style is associated with intrinsic religiousness.

Both the collaborative and deferring styles were positively associated with several measures of religiosity such as frequency of church attendance and of prayer, and religious salience. The self-directing style was negatively associated with the measures of religiosity.

The following relationships between the three religious coping approaches and other measures of psychological and social competence were also identified (Pargament et al., 1988):

- The *self-directing style* was related to a greater sense of personal control in living and higher self-esteem. This was consistent with an extensive literature pointing to the mental health benefits of an internal locus of control.
- The *deferring style* was related to a greater belief in control by God, lowered sense of personal control, greater sense of control by chance, lower self-esteem, and problem-solving skills marked by less future planning. (This style of religious coping resembles the avoidant problem-solving style mentioned in paragraph 4.1.1 above, which tends to hinder effective coping).
- The *collaborative style* was associated with a greater sense of personal control, a lower sense of control by chance, and higher self-esteem. In explaining how depending on God can also increase a sense of personal control, Pargament (1997) pointed out that it is only if reliance on God is a synonym for helplessness that this is hard to explain. If instead the

individual relies on God as a partner rather than as a substitute, his or her sense of efficacy and mastery will not be diminished, but will instead be enhanced.

The associations between the self-directing style and measures of social and psychological competence, and between the deferring style and less optimal psychological functioning, reported by Pargament et al. (1988) in their study testing the three styles, were confirmed in some subsequent research (Harris & Spilka, 1990, cited in Pargament, 1997; Kaiser, 1991). However, other subsequent research has indicated positive outcomes for the deferring style (Pargament, Ensing et al., 1990; VandeCreek et al., 1995, both cited in Pargament, 1997; Wong-McDonald, 2000) and poorer psychological outcomes for the self-directing style (Hathaway & Pargament, 1990; Pargament, Ensing et al., 1990 and Pargament et al., 1995, both cited in Pargament, 1997; Pargament et al., 1994; Phillips, Pargament, Lynn & Crossley, 2004; Rutledge & Spilka, 1993, cited in Pargament, 1997; Schaefer & Gorsuch, 1991; Wong-McDonald, 2000). In general, the collaborative approach to religious coping appears to be associated with more optimal psychological functioning.

Pargament et al. (1988) suggested that the self-directing religious coping style may be appropriate in situations that are personally controllable, but less helpful to individuals facing situations such as illness, accidents or deaths which lie beyond their control and severely test their coping resources. In these types of situations, the collaborative and deferring styles could be more helpful.

When he further developed his conceptualization of religious coping, Pargament (1997) suggested that, although there are many religious coping methods, they can be grouped into two distinctive patterns: (1) positive or helpful religious coping, including spiritual support, collaborative religious coping and benevolent religious reframing, and (2) negative or unhelpful religious coping, including religious pain, turmoil, frustration, discontent with the congregation and negative religious reframing (seeing events as God's punishment or as caused by Satan) (Pargament, Smith, Koenig & Perez, 1998). Further unhelpful religious coping methods are religious avoidance

and religious pleading (begging God for a miracle) (Hood et al., 1996). Positive religious coping is characterized by "a secure relationship with God, a belief that there is meaning to be found in life, and a sense of spiritual connectedness with others" (Pargament et al., 1998, p. 712), while negative religious coping is expressive of "a less secure relationship with God, a tenuous and ominous view of the world, and a religious struggle in the search for significance" (Pargament et al., 1998, p. 712).

Religion can therefore buffer the effects of stress, but does not always do so, and may even exacerbate the effects of stress when negative religious coping approaches are used. It is significant at this point to note that negative religious coping methods appear to involve both emotion-focused and avoidant coping strategies, which in paragraph 4.1.1 were linked to suicidal behaviour.

4.1.3 How religious coping may influence suicidal behaviour

It should be noted that Pargament (1997) has not used his coping models specifically in the field of suicide research, but in referring to a friend's suicide he wrote:

> We all have our breaking points, the point where we can no longer keep ourselves together. What determines where that breaking point is? Two things: the severity of the attack on significance and the ability of the orienting system to withstand these attacks. We are at our most vulnerable when our deepest values are touched by events for which we have the fewest resources and the heaviest burdens … With sufficient stress, desperate alternatives that never would have been considered become more available and more compelling (Pargament, 1997, p. 339-340).

The first cause of the breaking point is therefore the point at which meaning cannot be found in the situation, and this is often a key trigger for suicidal ideation. Regarding the second source of vulnerability, Pargament (1997) argued that religion can add strength to the orienting system by providing resources such as optimism, subjective well-being, psychosocial competence and social support. But religion may also weaken the orienting system, for example when religion is undifferentiated – in other words, when believers follow "shorthand summaries" (Pargament, 1997, p. 343) of the beliefs, practices and moral codes of their faith, never developing the capacity to

engage in more abstract, differentiated thinking. This leaves them unable to generate an adequate repertoire of responses to life's many challenges, such as coming to terms with pain, suffering and evil. As examples of religious undifferentiation, he cited:

- The emphasis in some religious contexts on unequivocal submission to all challenges, including pain and suffering, and the attribution of these to God's will, at the cost of exploring other causal factors and human agency.
- The tendency in some religious contexts to ignore, minimize, overlook or deny pain and suffering.
- An over-emphasis on personal sinfulness and guilt.

Other ways in which religion may harm the orienting system is when fragmentation develops between religious belief and practice or between religious motivation and religious practice, both of which have been shown to be associated with less optimal psychological functioning. Religious rigidity is another potential obstacle to a strong and effective orienting system, and the need for religious systems to be flexible so as to stay relevant is emphasised. Finally, Pargament (1997) highlighted insecure religious attachment as a factor that increases vulnerability to major life stressors, and this will be discussed in more detail in paragraph 5 of this chapter.

To summarise, suicidal ideation may result in the context of a severe attack on significance and when the individual's orienting system is not strong enough to survive this attack. Religion can both bolster and weaken the orienting system and can foster both helpful and harmful religious coping methods. If harmful religious coping is emotion-focused and avoidant, vulnerability to suicidal behaviour may also increase.

In addition to coping, depression, hopelessness and helplessness are psychological factors that contribute to suicide vulnerability but may also be the outcome of harmful religious coping. They could therefore mediate the relationship between religiosity and suicidal behaviour and are potential confounding variables in research in this area.

4.2 **Depression and suicide – the role of religion**

Depression is perhaps the most common factor associated with suicidality (American Psychiatric Association, 2000; Scocco et al., 2000), and this applies equally to suicidal ideation and attempts in late adolescence (Galaif, Chou, Sussman & Dent, 1998; Mazza & Reynolds, 1998; Thompson et al., 2005) and early adulthood, including among students (Kisch et al., 2005; Weber, Metha & Nelson, 1997; Zhang & Jin, 1996). It should be stressed however that not all depressed young people contemplate or attempt suicide, and equally those who exhibit suicidal behaviour are not all depressed (Greening & Stoppelbein, 2002; Kisch et al., 2005; Mazza & Reynolds, 1998).

A review of over 80 studies published over the last 100 years (McCullough & Larson, 1999, cited in Larson & Larson, 2003) found that in general religion was associated with lower rates of depression. However, religiosity and depression are not always inversely associated. As Harold Koenig's (2001/2a) review of 630 data-based research reports[1] suggests, there are mixed findings in this area[2]. It is possible that these inconsistent results reflect the less helpful forms of religiosity already referred to. For example, in both a student sample and a clinical sample of outpatients at anxiety and depression clinics, depression was associated with feelings of alienation from God and religious strain (Exline et al., 2000). Furthermore, in a survey of 2,537 subjects, both non-organizational religiosity (e.g. prayer and religious salience) and organizational religiosity (e.g. attendance at religious services) buffered the impact of stressors on depression for non-family stressors (such as financial and health problems). However non-organizational religiosity exacerbated the associations with depression in relation to problems with children, while organizational religiosity exacerbated the associations with depression where the stressors involved marital problems, abuse and care giving (Strawbridge et al., 1998). The conclusion was that religiosity may help those experiencing non-family stressors, which are typically not perceived as being caused by the individual. However, religiousness may evoke guilt in

[1] See Appendix B.

[2] Four studies reported higher levels of depression among the religious (Neeleman & Lewis, 1994; Schafer, 1997; Sorenson, Grindstaff & Turner, 1995; Spiegel, Bloom & Gottheil, 1983, all cited in Koenig (2001/2a). Other studies reported no direct relationship between religious variables and depressive symptoms (e.g. Williams, Larson, Buckler, Heckmann & Pyle, 1991, cited in Strawbridge et al., 1998) or mixed findings (significant positive correlations with some religious variables, but significant negative relationships with others) (Koenig 2001/2a).

the presence of family crises, given religious values of family cohesion and marital harmony.

When he examined the relationship between guilt (including religion-induced guilt) and depression, Frankl (1967) pointed out that while guilt does not necessarily lead to depression, depression causes guilt to be felt very acutely. This would suggest that for religious people experiencing depression, guilt might be a prominent feature. Although depression was not measured in a study involving 121 college students, Kaiser (1991) found that the self-directing religious coping style correlated negatively with various guilt scales and with scales measuring beliefs about being punished and forgiven and beliefs about sin and grace, while both the collaborative and deferring religious coping styles were positively associated with measures of guilt and the beliefs in being punished as well as forgiven.

It should be noted that studies in which depression and religiosity are positively associated are often cross-sectional in design, which means that the direction of influence can only be hypothesized (e.g. Murphy, Cairrocchi & Piedmont, 2000, cited in Van Ness & Larson, 2002). One possible interpretation is that depression may have caused the subjects to intensify their religious beliefs (Van Ness & Larson, 2002). Similarly, Exline et al. (2000, p. 1493) suggest that depression is a stressor in itself and so it is "plausible that depressive symptoms could mobilize greater religious involvement in some people while leading others to withdraw from religion".

In summary, religiosity is usually associated with lower levels of depression, but depression may cause some individuals to turn to religion. In addition, religious strain, shame and guilt may be associated with increased levels of depression, and this will increase vulnerability to suicidal behaviour.

4.3 Hopelessness and suicide – the role of religion

Joiner and Rudd (1996, p. 19) stated: "Of the numerous predictors and correlates of suicidality, arguably the most robust and consistent is

hopelessness". Hopelessness is a key characteristic of depression and is associated with both suicidal ideation and behaviour in all age groups, including young adults (Beck, Steer, Kovacs & Garrison, 1985; D'Zurilla et al., 1998; Edwards & Holden, 2001; Mazza & Reynolds, 1998; Thompson et al., 2005; Weber et al., 1997).

"Hopelessness – pessimism for the future – is thought to be the pernicious component of the depressive cognitive style that predisposes an individual to increased suicidal risk" (Hunter & O'Connor, 2003, p. 355). Parasuicide patients were found to be impaired in their ability to generate positive future experiences and thoughts, and were also more prone to having a negative cognitive style, which was highly significantly associated with both depression and hopelessness (O'Connor, Connery & Cheyne, 2000). Socially prescribed perfectionism (characterized as being driven by fear of failure or avoidance of punishment) was negatively associated with positive future thinking and positively with hopelessness (Hunter & O'Connor, 2003).

When the sense of hopelessness in a suicidal individual disappears, the active motivation to die is also stemmed, and suicidal behaviour abates (Rudd, 2000); this suggests that hope may be a deterrent to suicidal behaviour. Hope is a prominent feature of Judaism, Christianity and Islam, which all espouse the belief in an afterlife beyond this world. Religious faith has been shown to engender optimism in the short-term and also foster long-range hope, including infinite hope in the form of a belief in life after death (Myers, 1992, cited in Hood et al., 1996; Van Ness & Larson, 2002). Religious faith suppresses suicidality in the elderly (Koenig, 1994, cited in Hood et al., 1996), and it is thought this may be because they identify with their faith's condemnation of suicide, as well as with the promise of a happy life after death (Nelson, 1977, cited in Hood et al., 1996).

However, religion does not always inspire hope in believers. Religious beliefs in predetermination by a distant and potentially punitive God may result in pessimism and hopelessness, which may debilitate self-enhancing actions (Peterson, Seligman & Vaillant, 1988, cited in Dull & Skokan, 1995). Negative religious coping may emerge from a less hopeful religious disposition (Van Ness & Larson, 2002).

In conclusion, research indicates that religious people tend to be more hopeful and optimistic than the nonreligious. However, religion does not always inspire hope, and since hopelessness is strongly associated with suicidal behaviour, religious beliefs and behaviours that facilitate hopelessness may also increase vulnerability to suicidality.

4.4 Helplessness, control and suicide – the role of religion

Helplessness is often an important theme in therapy focusing on suicidal ideation or attempts (Litman, 1970). Freud (1920, cited in Litman, 1970) proposed that, because of prolonged and intolerable infantile helplessness, controlling elements are built into the superego, and that this may manifest as masochism (or the death instinct), which in an extreme form could take the form of suicidal behaviour. Attachment difficulties in childhood and the developmental challenges of emotional separation from parental figures in adolescence may have the effect of diminishing the adolescent's sense of personal control and self-efficacy, and lead to inappropriate choices in the face of stress (Hendin, 1991; Kraaij et al., 2003; Thompson et al., 2005). This will result in anxiety and helplessness and ultimately, if prolonged, feelings of hopelessness that render the individual more susceptible to suicidal behaviour (Thompson et al., 2005).

The relationship between helplessness and suicide is a complex one. More assertive forms of suicide can be seen as an expression of the need to reclaim a sense of omnipotence in the face of helplessness, a control over life and death (Asch, 1980; Maltsberger & Buie, 1980), as for example in the case of completed suicides by terminally ill patients: "In the suicidal act the self, too, regains a feeling of power, and achieves a final, though fatal, victory" (Jacobson, 1971, quoted in Asch, 1980, p. 394). Apart from the use of suicide to regain a sense of control over one's life in those who feel helpless, it can also be used to control others, including parents and therapists (Hendin, 1981, 1991).

Religion also offers a means of regaining a sense of control in the face of feelings of helplessness:

> Individuals may gain … (perhaps vicarious) control by developing an ongoing personal relationship with a perceived divine other who (a) is believed to love and care for each person unconditionally, and (b) can be engaged interactively (via prayer and meditation) in a quest for solace and guidance (Ellison, 1998, p. 693).

Prayer may be used in an attempt to change the course of events or how those events are perceived by the individual (Sherrill & Larson, 1994, cited in Dull & Skokan, 1995), and religion may be seen as means of changing oneself, a process known as 'secondary control' (Hood et al., 1996). However religion might also remove feelings of control when "important life decisions and events are interpreted in the context of whether they are deemed acceptable by some religious leader or by God" (Dull & Skokan, 1995, p. 52).

The relationship between religion and locus of control is not clear. In some studies, a belief that God is in control of one's life and frequency of church attendance are negatively associated with an internal locus of control and self-efficacy (Mcintosh, Kojetin & Spilka, 1985; Pargament, Steele & Tyler, 1979, both cited in Pargament & Park, 1995), but in other studies they are positively related (Benson & Spilka, 1973; Jackson & Coursey, 1988, both cited in Pargament & Park, 1995). A personal sense of control has been positively associated with intrinsic religiousness and images of God as loving (Benson & Spilka, 1973, cited in Pargament & Park, 1995).

Thus religious faith may help to overcome the feelings of helplessness that potentially increase vulnerability to suicidality. Paradoxically, however, religion may also strip the individual of feelings of control, thereby increasing the risk of suicidal behaviour.

5 Religious Attributions and a Cognitive-Affective-Behavioural Theory of Suicidality – how Religious Coping may be linked to Suicidal Ideation

The literature reviewed in the previous section has highlighted the complexity of the relationship between religiosity and vulnerability to suicidality. While most of the research suggests that religion protects individuals from suicidal behaviour and its underlying risk factors, there is a body of research that suggests that religion can result in negative religious coping behaviours and beliefs that may increase vulnerability to suicidality. It would appear that whether religion is helpful or harmful psychologically depends at least in part on how the individual perceives and thinks about his or her religious beliefs and God, and what kinds of religious coping and behaviours might emerge from this process. Thus, "the more useful question to ask is *how* a person is religious rather than *whether* a person is religious" (Payne, Bergin, Bielma & Jenkins, 1991, quoted in Davis et al., 2003, p. 357, italics added).

Religion has been described as a superordinate cognitive schema that will strongly influence other cognitions and coping behaviours (Dull & Skokan, 1995; Pargament, 1997). Religious beliefs are cognitions that "may affect how someone interprets life events, and such interpretation may lead to either helpful coping behaviors or, alternatively, debilitating stress reactions" (Dull & Skokan, 1995, p. 50). Thus, for example, religion may facilitate an interpretation of events as biased in favour of the individual, or it "may contribute to self-devaluation, other-directed control, and stress from noncompliance with religious tenets" (Dull & Skokan, p. 52).

Moreover hopelessness, a key risk factor for suicidal ideation, has been described as "the pernicious component of the depressive cognitive style that predisposes an individual to increased suicidal risk" (Hunter & O'Connor, 2003, p. 355). A cognitive framework seems therefore an appropriate vehicle in the attempt to understand how religiosity could be helpful or harmful to individuals, and thereby either protect them from or increase their vulnerability to suicidal behaviour. Religious cognitions, including religious attributions, are clearly an important dimension to consider in this regard.

5.1 Religious attributions – religious cognitions that reflect and influence religious beliefs and behaviours

Whether religion has a positive or negative impact on psychological functioning and well-being may be linked to the religious attributions people make, in other words how they perceive God and make meaning of the events in their lives. Socio-cultural contexts and different religious traditions impact on how the meaning of life events is appraised (Dalal & Pande, 1988; Jahangir et al., 1998; Pressman et al., 1992).

Religious attributions may also be influenced by infantile experiences of the parental relationship. For example, feeling alienated from God or having an image of God as cold or distant could suggest anger at God, religious doubt or uncaring images of parents that translate into an insecure attachment with God (Exline et al., 2000). Pargament (1997) highlighted insecure religious attachment as a factor that weakens the capacity of the individual's orienting system to cope with major life stressors. Noting the many images of God as "comforting", "loving", "protective", and "supportive", but also "avenging", "hard", "severe", and "wrathful", he cited Kirkpatrick's (1992) assertion that these images are strikingly similar to images of parental figures, and that relationships with the divine can be as anxious/ambivalent or avoidant as relationships with one's parents. In one study, participants who saw themselves as having an insecure attachment to God reported more anxiety, loneliness, depression, poorer physical health and lower life satisfaction than those who described a secure religious attachment (Kirkpatrick & Shaver, 1992, cited in Pargament, 1997).

Religious attributions are in effect cognitions that may be positive or negative in nature and in impact on psychological functioning and religious behaviours, for example:

- Frequency of attendance at religious services varies according to "the salient metaphors for one's relationship with the divine (i.e. God as judge, healer, redeemer, liberator, father, mother, friend, etc)" (Levin & Taylor, 1997, p. 84).

- Caregivers of patients with Alzheimer's disease who felt anger towards or distance from God and who questioned their faith were more likely to suffer from depression (Shah, Snow & Kunik, 2001).
- College students who had lost a family member or close friend had higher levels of personal growth when they were able to attribute the deaths to a loving God (Park & Cohen, 1993, cited in Pargament & Park, 1995).
- In a sample of undergraduate students who had experienced their parents' divorce during adolescence, attributing parental divorce to God's anger was a significant predictor of religious discontent and pleading behaviours (begging God for a miracle), or both, while attributing the divorce to a lack of God's love also tended to result in pleading activities. Those who perceived the divorce to be part of God's plan were able to cope more actively with the issue (Shortz & Worthington, 1994).
- In a study on HIV-infection and anxiety, those patients who interpreted their infection as a punishment from God experienced higher anxiety and spiritual distress (Kaldijian, Jeckel & Friedland, 1998, cited in Larson & Larson, 2003).
- In Exline et al.'s (2000) research, feelings of alienation from God were strongly associated with depression.

Pargament (1997) concluded that secure and insecure attachment to God are probably associated with very different world orientations, and that those with the former style are likely to use more helpful religious coping methods, while those with a more insecure attachment to God would be more likely to use the more harmful religious coping methods.

Maynard, Gorsuch and Bjorck (2001), in their study involving 129 undergraduates, suggested that an individual's concept of God will play an important mediating role in the religious coping style utilised, thus suggesting a link between insecure religious attachment, negative religious attributions and less helpful religious coping. In Schaefer and Gorsuch's (1991) study involving 161 students at church-affiliated institutions, the collaborative and deferring styles were significantly positively related to both positive and negative concepts of God (as benevolent, guiding, caring and wrathful). Similarly in Maynard et al.'s (2001) research, the deferring style was associated with concepts of God as stable and guiding, and the more

religious participants tended to see God as good. However a measure of spiritual importance was positively associated with a belief that God is wrathful, and, contrary to expectations, religiosity was not significantly negatively correlated with a concept of God as condemning. Thus, individuals who believe in and depend to some extent on God could perceive Him as stable, caring and good, but might also on occasion see Him as angry or punitive.

In summary, it has been suggested that religious cognitions influence how events are interpreted, and that this may result in helpful coping behaviours or debilitating stress reactions (Dull & Skokan, 1995). Given this link between cognitions and coping behaviours, it can be assumed that helpful or harmful religious coping behaviours may emerge from positive or negative religious attributions. Suicidality is often characterized by cognitive rigidity (Schotte & Clum, 1987, cited in D'Zurilla et al., 1998) and avoidance coping behaviours (Edwards & Holden, 2001; Josepho & Plutchik, 1994), again highlighting the relationship between cognitions and coping behaviours in the context of suicidal behaviour. To provide an integrative model of how these factors might interact with each other in the context of positive ideation versus suicidal ideation, a theory of suicidality that focuses on cognitions, emotions and behavioural responses will now be explored.

5.2 A cognitive-affective-behavioural theory of suicidality

The previous sections have indicated that religiosity may be positive or negative in its impact on psychological functioning, and while it is generally protective against suicidal behaviour, religious strain has been associated with suicidality (Exline et al., 2000). Religious attributions are religious cognitions that arise out of secure or insecure religious attachment, and may result in helpful or harmful coping methods that have an impact on psychological functioning. When religiosity becomes over-focused on sinfulness and failure to live up to certain standards, negative emotions such as guilt, shame and hopelessness may result, and these have also been associated with depression and suicidality. Therefore religion may impact on cognitions, emotions and behavioural responses.

David Rudd (2000) has developed a cognitive-affective-behavioural model of suicidality that may help to integrate some of these concepts. Based on Beck's (1996, cited in Rudd, 2000) modal theory of psychopathology (modes being the structural or organizational units that contain schemas), he proposed a model termed the *suicidal mode* in which predisposing vulnerabilities and potential stressors interact together to trigger four interactive systems (cognitive, affective, behavioural and motivational, and physiological) (see Figure 2.1).

One of Rudd's (2000) key assumptions is that cognition is the central pathway for suicidality, which is:

> Secondary to maladaptive meaning constructed and assigned regarding the self, the environmental context, and the future (i.e. the cognitive triad, along with related conditional assumptions/rules and compensatory strategies, referred to as the suicidal belief system) (Rudd, 2000, p. 22).

The *suicidal belief (i.e. cognitive) system* contains core beliefs which in suicidal patients contain elements of helplessness, unlovability, poor distress tolerance, with an underlying future orientation of pervasive hopelessness[1].

In Rudd's (2000) model, the core beliefs of helplessness, unlovability or poor distress tolerance render the suicidal person vulnerable to maladaptive beliefs regarding:

- The self – inadequate, worthless, incompetent, helpless, imperfect, unlovable and defective (e.g. I'm worthless; I don't deserve to live; I can't change any of this);
- Others – rejecting, abusing, abandoning (e.g. nobody really cares about me); and
- The future (potential for change) – hopeless (e.g. things will never change and I can't stand this pain any longer).
- Conditional rules or assumptions (e.g. if I'm perfect then people would accept me).

[1] This linking of cognition and hopelessness is consistent with Abramson et al.'s (1989, cited in O'Connor et al., 2000) hopelessness theory, which suggests that certain cognitive styles predispose vulnerability to depression and hopelessness.

- Compensatory strategies – overcompensation, perfectionism, subjugation in relationships (Rudd, 2000).

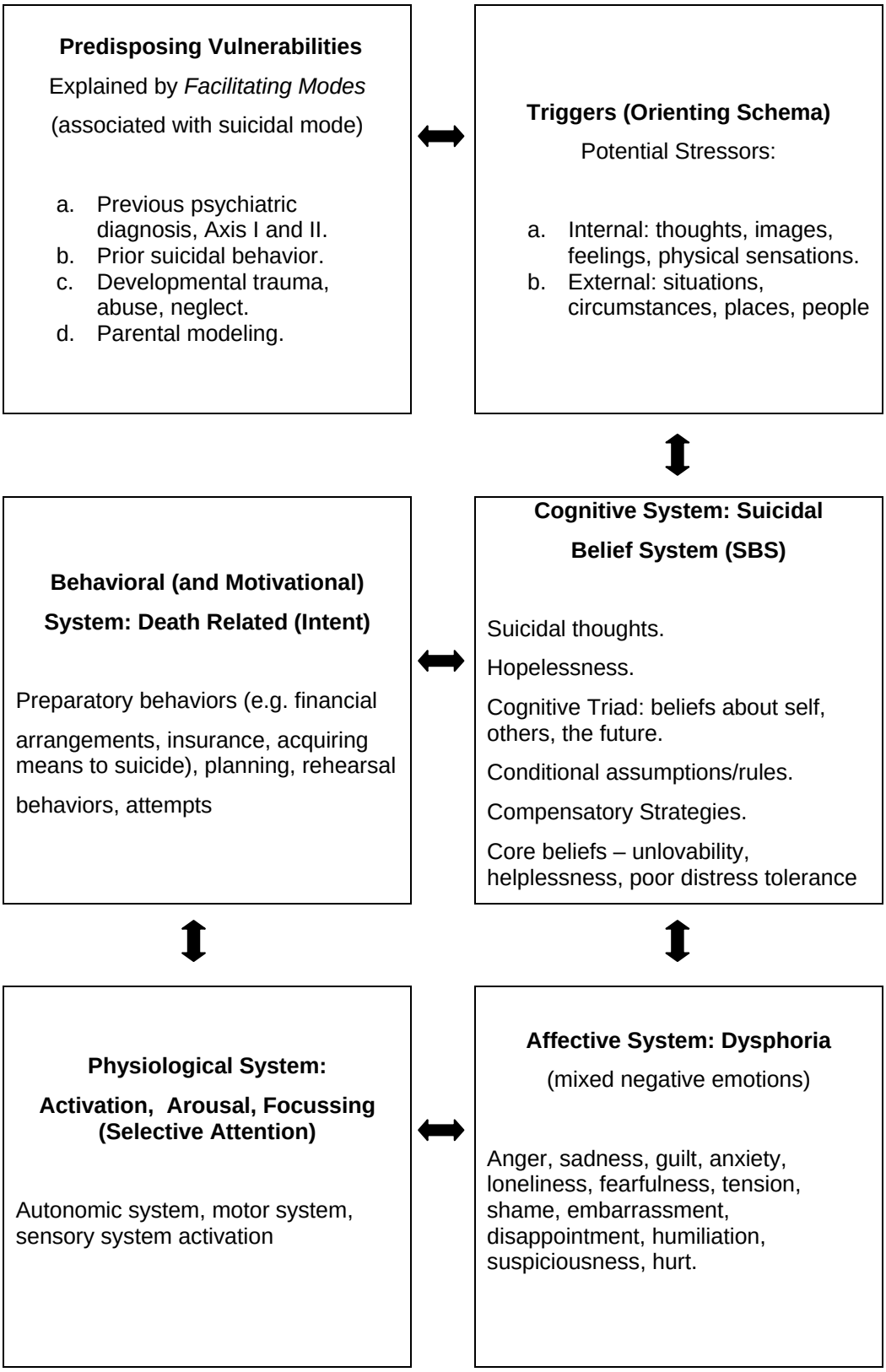


Figure 2.1 : Cognitive-Behavioural-Affective Model of Suicidality (Rudd, 2000, p. 28)

The *affective system* is characterized not only by depression but by dysphoria – mixed negative emotions such as sadness, depression, anger, anxiety, tension, guilt, hurt, suspiciousness, fearfulness, loneliness, disappointment, embarrassment, humiliation and shame. The *behavioural system* is dominated by the motivational drive of the individual, consisting of an intent to die and characterized by preparatory behaviours, planning, rehearsal behaviours and suicide attempts. The *physiological system* refers to the autonomic system, motor system, and sensory system activation. Selective attention causes activation, arousal and focusing on elements in all systems within the suicidal mode. This system needs to be activated for suicide to be attempted or completed (Rudd, 2000).

It was previously suggested that negative religious attributions may result in harmful religious coping behaviours and negative cognitions and emotions such as depression, hopelessness, helplessness, shame and guilt. Rudd's (2000) model of suicidality can be used to illustrate and explain how these maladaptive cognitions and dysphoric emotions may interact with behavioural and physiological systems in the development of suicidal behaviour. It is suggested that insecure religious attachment arising out of infantile experiences of the parental relationship may constitute a *predisposing vulnerability* to suicidal behaviour, which when triggered by *stressors* (either external or internal) may set in motion a *cognitive process* involving negative religious attributions and harmful religious coping strategies. The consequent core beliefs of unlovability and helplessness, with an underlying pervading sense of hopelessness (i.e. the suicidal belief system) may trigger maladaptive beliefs regarding the self, others (including God) and the future. The resulting interaction of this suicide belief system with the *affective system* (involving feelings of despair, guilt and shame), the *behavioural system* (including suicidal ideation and planning behaviours), and finally the *physiological system*, constitute the suicidal mode in terms of Rudd's (2000) model.

By contrast, a more secure religious attachment may lessen vulnerability to suicidal behaviour, and will in all probability be associated with more helpful religious coping and positive religious attributions. This reduces the possibility for hopelessness, helplessness and unlovability to develop as core

beliefs, and without this cognitive framework, the central pathway to suicidality is absent. Positive ideation is therefore more likely to be associated with secure religious attachment, helpful approaches to religious coping, and positive religious attributions.

Coping and suicidal ideation both have cognitive and emotive components. The cognitive-affective-behavioural model of suicidality therefore provides a useful vehicle for integrating the risk factors for suicidal behaviour, particularly those that might arise from or be exacerbated by more harmful forms of religiosity. Negative religious cognitions may contribute to the core beliefs of helplessness and unlovability, and the underlying future orientation of pervasive hopelessness. Negative emotions such as depression, shame and guilt, arising from sin-focused religiosity, will play a part in the affective system. Finally, negative religious coping and hopelessness will result in the suicidal mode's behavioural system becoming activated in the form of suicidal ideation, which with activation of the physiological system may result in suicide attempts or completed suicide.

6 Summary

In this literature review the international and local prevalence of suicidal ideation and behaviour in young adults, including among students, was examined. While 9.5% of students in a large American sample had thought about suicide in the previous 12 months, and 1.5% had attempted suicide (Kisch et al., 2005), the limited available South African data suggest that rates of suicidal behaviour in this country are higher. Some preliminary risk factors for suicide in young adults were identified – namely maladaptive coping and problem-solving strategies, depression, hopelessness and helplessness.

Religion can offer a sense of life meaning, the absence of which, termed an "existential vacuum" by Frankl (1967, p. 31), is associated with suicidal behaviour. Since it was assumed that religiosity would impact on decisions about suicide and suicidal behaviour, the relationship between religion and suicide in the sociological and psychological literature was explored. In general, this research suggests that religion has a protective impact, but the

existence of religious strain (as evidenced by shame or guilt, for example) has been associated with increased vulnerability to suicidality. While there has not been extensive research into *how* religion may increase suicide risk, broader research indicates that while religiosity is in general associated with more optimal psychological functioning, religious strain and spiritual distress may result in psychological distress (or may themselves result from the latter). Religion's capacity for either positive or negative impact was explored in more detail with regard to the vulnerability factors for suicide. Thus religious coping can be either helpful or harmful, and depression, hopelessness and helplessness may be alleviated or exacerbated by religiosity. .

It was suggested that the key to whether religion is helpful or harmful may lie in the area of cognition, and religious attributions were shown to be associated with differential impacts on psychological functioning, and different coping approaches. Insecure religious attachment was suggested as an important predictor of how God is perceived and how the individual makes spiritual meaning of life experiences. A cognitive-behavioural-affective model of suicidality provides a possible way of linking the cognitive and affective risk factors for suicidal behaviour that had been explored previously.

Finally, this chapter has reviewed research "crafted by sociologists, psychologists, psychiatrists, and social epidemiologists, these contributions reflect(ing) the diverse and increasingly multidisciplinary character of religion/health (including mental health) research" (Ellison, 1998, p. 694). It has been repeatedly emphasised that all the constructs under consideration – including religiosity, religious coping, psychological functioning, and suicidal behaviour – are complex, multifaceted and multidimensional, which makes any empirical relationships between them all the more complex:

> Understanding the role of religion with respect to any particular applied problem requires a highly differentiated view of both religion and the problem under consideration, as well as a coherent model of their interrelations. The devil, so to speak, is in the details (Paloutzian & Kirkpatrick, 1995, p. 9).

CHAPTER THREE : METHODOLOGY

1 Aims

The aims of this study are to investigate the prevalence of suicidal behaviour in a sample of young adults, and the relationship between religiosity on the one hand, and suicidal ideation and positive ideation on the other.

Suicidal behaviour is measured by indicators of suicide attempts and suicidal ideation. Suicidal ideation is measured by a self-report instrument which assesses both negative thoughts related to suicidal ideation or behaviour, and positive thoughts which are a measure of optimism and belief in one's capacity to control most of life's circumstances and to cope (Osman et al., 1998).

Religion or religiosity is measured in two ways:

- Self-rated indicators of religious salience and participation such as importance of religion to participants, frequency of attendance at religious services, and frequency of prayer; and
- Style of religious coping (self-directing, deferring or collaborative) (Pargament et al., 1988).

2 Hypotheses

The core research focus is the relationship between religious salience, participation and religious coping approaches, and suicidal ideation – specifically whether religion offers comfort and protection from suicidal ideation or plans, or indeed whether it may facilitate the suicide decision. The hypotheses in this study are:

2.1 The prevalence of suicidal behaviour (attempts and ideation) in the sample of young adults will be high.

2.2 There will be a negative relationship between the indicators of religiosity (importance of religion, frequency of attendance at religious services, and frequency of prayer) and the self-directing religious coping style.

2.3 There will be a positive relationship between the indicators of religiosity and the collaborative and deferring religious coping styles respectively.

2.4 There will be a negative relationship between negative (suicidal) ideation and the indicators of religiosity.

2.5 There will be a positive relationship between positive ideation and the indicators of religiosity

2.6 There will be a relationship between negative (suicidal) ideation and the self-directing approach to religious coping. This relationship may be negative or positive, suggesting that this approach may either protect against or facilitate suicidal ideation.

2.7 There will be a relationship between negative (suicidal) ideation and the collaborative religious coping style. This relationship may be negative or positive, suggesting that this style may either protect against or facilitate suicidal ideation.

2.8 There will be a negative relationship between negative (suicidal) ideation and the deferring religious coping style, suggesting that this style may act as an inherent barrier to suicidal ideation.

2.9 There will be a positive relationship between positive ideation and the self-directing and collaborative religious coping approaches respectively.

2.10 There will be a negative relationship between positive ideation and the deferring religious coping style.

3 Participants

3.1 Nature of the sample

Convenience sampling, a sub-category of non-probability sampling, was the approach chosen for this research. In the present study, the sample consisted of 100 second and third year psychology students at the University of the Witwatersrand. This sample was reduced to 85 to exclude incomplete data and participants who were too old for the study. All the subjects in the final sample were young adults between the ages of 19 and 30. The mean age of the sample was 21.5. Table 3.1 provides a breakdown of the characteristics of the sample. Participation in the study was voluntary and subjects were required to give informed consent of participation. The consent form is provided in Appendix C.

3.2 Representativeness of the sample

This study is a non-probability study and thus has no random selection. The present research consists of a volunteer sample, and care must therefore be taken when drawing conclusions, because of the possibility that there may be volunteer bias. Rosnow and Rosenthal (1999) stated that volunteers and non-volunteers differ in many ways. They proposed that, when compared with non-volunteers, volunteers are better educated, higher in social status and IQ, have a greater need for social approval, are more sociable, arousal-seeking, and unconventional, and less authoritarian. Women are more likely to volunteer for research than men.

The target population was young adults between the ages of 18 and 30. The accessible sample was students at the university, and the actual sample was those in second and third year psychology classes.

Although participants in the study were of both genders as well as different socio-economic backgrounds, the sample is not an accurate reflection of the population, because the ratio of females to males in the study is almost 3:1.

Different ethnic groups and religions were also represented in the sample, but these may not be in proportion to the population. As all the different groups are represented, the actual sample is somewhat representative of the accessible sample, which is to a degree representative of the target population. Therefore problems of population validity may exist but are perhaps minimal.

Table 3.1

Sample characteristics

Characteristic		Frequency	Percentage
Gender	Female	63	74.1
	Male	22	25.9
Ethnic background	Black	43	50.6
	Coloured	6	7.1
	Indian / Asian	16	18.8
	White	20	23.5
Religious affiliation	Buddhism	3	3.5
	Christianity	60	70.6
	Hinduism	4	4.7
	Islam	7	8.2
	Judaism	3	3.5
	Other (e.g. agnosticism)	8	9.4

4 Instruments and Techniques

4.1 Demographic questionnaire

A demographic questionnaire was administered in order to measure various dimensions of religiosity, such as personal expressions of religiousness (religious salience and frequency of prayer) and organizational involvement (frequency of religious attendance). This questionnaire also included questions about religious affiliation, gender, age, and previous suicide attempts. A copy of the demographic questionnaire can be found in Appendix C.

4.2 The Positive and Negative Suicide Ideation Inventory (PANSI)

The PANSI is a 14-item self-report instrument designed to measure the frequency of positive (buffering) and negative dimensions of suicide ideation, "based on the clinical assumption that many negative thoughts associated with few positive thoughts present as significant risk factors for suicidal behavior" (Osman et al., 1998, p. 784). Of the 14 items, 8 measure Negative Ideation (i.e. suicidal ideation), while 6 measure Positive Ideation, which reflects optimism about the future. The authors recommend that research using this instrument should compute the separate scales and not a total scale score.

The authors report reliability coefficients for PANSI of .82 for the Positive Ideation Scale and .93 for the Negative Ideation Scale (Osman et al., 1998). In the current study, a two-way analysis of the PANSI Scale was conducted to determine its internal consistency, and the Cronbach coefficient alpha value was .63. This is a reasonable degree of internal consistency, suggesting that the scale is evaluating the construct it purports to measure.

With regards to validity of the scale, the PANSI has compared favourably with other suicide indices such as the Suicide Probability Scale and the Beck Hopelessness Scale (Lester, 1998). However, since the PANSI is a fairly new scale, it requires further validation.

A copy of the PANSI can be found in Appendix C.

4.3 Religious Problem-Solving Scales (short form)

In line with recommendations in the literature (McCullough & Larson, 1998; Pargament & Park, 1995), it is necessary when measuring religion to focus on concrete and particular dimensions by selecting an instrument that might lead to greater understanding of how specific aspects of religiosity might influence aspects of mental health. One such dimension is the use of religious resources for coping and, for this purpose, the Religious Problem-Solving scales, developed by Pargament et al. (1988), were selected. This instrument proposes three styles of religious coping, varying on two key dimensions of problem-solving[1], namely locus of responsibility for problem-solving and level of control or activity in the problem-solving process.

The short form of the Religious Problem-Solving Scales is an 18-item self-report instrument designed to measure three styles of religious coping based on a 6-phase model of problem-solving (defining the problem, generating alternative solutions, selecting a solution, implementing the solution, redefining the problem and maintaining oneself emotionally). For each coping style, there is one item per problem-solving phase. The three approaches are:

- The self-directing approach, wherein the individual relies on him-/herself in coping and problem-solving rather than on God;
- The deferring approach, in which the responsibility for coping and problem-solving is passively deferred to God; and
- The collaborative approach, in which the individual and God are both active partners in coping and problem-solving, and neither party is passive.

[1] It should be noted that in terms of this model Pargament et al. (1988) use the terms religious coping and religious problem-solving interchangeably.

The authors report high reliability estimates, based on the long form (36 items) of the scales (Pargament et al., 1988): Internal consistency (Cronbach's alpha) - .94 (collaborative), .94 (self-directing) and .91 (deferring); Test-retest reliability estimates - .93 (collaborative), .94 (self-directing) and .87 (deferring). There were moderate intercorrelations between the 3 scales: collaborative with self-directing (r = -.61), collaborative with deferring (r = .47) and self-directing with deferring (r = -.37) (Pargament et al, 1988).

The authors also report that the scales have demonstrated adequate validity. The three styles were differentially associated with five measures of religiousness – frequency of church attendance, frequency of prayer, religious salience (how important religion is to the participant), intrinsic religiousness (degree to which spiritual faith and religion provide meaning and motivation to a participant) and doctrinal orthodoxy (extent to which one adheres to religious doctrine). More specifically, they found significant positive relationships between both the collaborative and deferring styles and all five measures of religiousness. Conversely, the self-directing style was significantly negatively related to the various measures of religiousness (Pargament et al., 1988).

A copy of the Religious Problem-Solving Scales (short form) can be found in Appendix C.

5 Design

As this is a correlational study, there are no independent and dependent variables. The design of the study is non-experimental as there is no control, no manipulation and no random assignment.

The initial part of the study involves the assessment of the prevalence of suicidal behaviour, suicidal ideation and positive ideation in the given sample. The measures of religiosity (including religious coping styles and the measures of religious salience and participation) are investigated for prevalence and in order to assess whether there is any relationship between them. The final part of the study involves an investigation of the relationships

between suicidal ideation and positive ideation, on the one hand, and the religious coping styles, on the other.

6 Procedure and Statistical Analyses

This was a quantitative study. A demographic questionnaire and two self-report inventories were given to the students to complete during a single lecture. It took students approximately 30 minutes to complete both inventories and the demographic questionnaire. As the participants were university students, illiteracy was not a problem. Before the inventories were administered, the researcher and two colleagues gave a lecture on suicide to the whole class. A short break was then given, during which those who chose not to participate had an opportunity to leave, thus avoiding any coercion of students into volunteering. After the break, the remaining students were given the research instruments to complete. Each batch of tests was assigned a random number by the student participant and submitted in an envelope, which was placed in a box provided for the purpose. Names were not asked for as the study is anonymous and participant results are confidential.

The following statistical analyses were performed:

- In order to measure the internal consistency of the two instruments, a two-way analysis of the PANSI Scale and a three-way analysis of the Religious Problem-Solving Scale were conducted in order to ascertain the Cronbach coefficient alpha value.
- In order to measure the prevalence of suicidal behaviour in the sample, descriptive statistics were calculated with regard to previous suicide attempts, and PANSI negative ideation (NI) and positive ideation (PI).
- In order to measure the degree of religiosity in the sample, descriptive statistics were calculated for the indicators of religiosity and the religious coping subscales. The indicators of religiosity were also statistically compared with each other using Pearson Correlation Coefficients in order to assess whether participants' attitudes to the importance of religion were consistent with their religious behaviours.

- In order to evaluate the relationship between the indicators of religiosity and the religious coping styles, one-way analyses of variance (ANOVAs) and t-tests were calculated.
- In order to evaluate the relationships between the indicators of religiosity and negative and positive ideation, the indicators were statistically compared to the PANSI NI and PI scores using Pearson Correlation Coefficients.
- Finally, in order to evaluate the relationships between the religious coping styles and negative and positive ideation, the religious coping subscales were statistically compared to the PANSI NI and PI scores using Pearson Correlation Coefficients.

7 Ethical Considerations

The research proposal for this study was submitted to the Committee for Research on Human Subjects (Non-Medical) of the University of the Witwatersrand, for the purposes of ethical screening. Approval was given on 8 May 2003, valid for two years but extended for a further two years on 21 February 2005 (see Annexure D for Clearance Certificate – Protocol Number H03-05-11, and letter confirming extension). The ethical clearance states that the topic has been approved, subject to the researcher providing volunteers with an envelope and a box in which to return the questionnaires. In addition, the lecture on suicide should be offered to all potential participants. These conditions were applied during the data collection.

A covering letter was provided to all potential participants. This explained what the study was about and requested participation but explained that this was completely voluntary and there would be no negative consequences for non-participation. Anonymity and confidentiality were guaranteed, and return of the completed questionnaires was regarded as confirmation of informed consent. (See Appendix C for a copy of the covering letter/consent form).

Anonymity and confidentiality were ensured for all participants during the data collection and research phases of the study. Because of the requirement for anonymity, it was not possible to contact the participants who presented with

high PANSI NI scores. However, the covering letter provided all participants with information regarding available resources for those who felt they needed assistance (see Appendix C). Moreover, prior to the data collection, the class was given a lecture about suicide, which provided information as well as additional resources. No participant reward for participating in the study was given as the lecture was given to all students in the class, and not only to those who participated in the study.

As participation was voluntary, the subjects were informed of the nature of the study and their right to withdraw, without being penalized, at any time. Informed consent from the participants was obtained.

It must be noted that although suicide is a sensitive subject, there is no research evidence that a discussion about suicide or suicide-related questionnaires contribute substantively to suicide attempts.

CHAPTER FOUR : RESULTS

1 Introduction

The hypotheses in this study relate to the central question of the relationship between religious salience, participation and religious coping, on the one hand, and suicidal ideation, on the other. It is anticipated that there will be a high prevalence of suicidal behaviour in the sample. The self-directing religious coping style is expected to be characterized by low levels of the indicators of religiosity (importance of religion, frequency of attendance at religious services, and frequency of prayer), and this style may act as either a protective or a facilitating attitude with respect to suicidal ideation. The religiosity indicators are expected to be more typical of the collaborative and deferring approaches to religious coping. It is anticipated that the deferring style and indicators of religiosity will be negatively associated with suicidal ideation, while the collaborative style may be either protective against suicidal ideation, or may facilitate it. Positive ideation is expected to be associated positively with the indicators of religiosity and with the self-directing and collaborative religious coping styles, and negatively associated with the deferring religious coping style.

This chapter contains the results relating to:

- The demographics and prevalence of suicidal behaviour and ideation in the sample;
- The religiosity and prevalence of religious coping styles in the sample, and the relationship between these two measures; and
- The relationship between the indicators of religious salience and participation and the approaches to religious coping, on the one hand, and suicidal ideation and positive ideation on the other.

2 The Sample

2.1 Demographics

The sample consisted of 85 second and third year psychology students from the University of the Witwatersrand. The students comprised of 22 males (25.88%) and 63 females (74.12%). The age range was 19 – 30 with a mean of 21.49 years and a standard deviation of 2.33. Twenty of the participants (23.53%) were White, 43 (50.59%) were Black, 16 (18.83%) were Asian/Indian, and 6 (7.06%) were Coloured.

2.2 Prevalence of suicidal behaviour and ideation

The prevalence of suicidal behaviour in the sample was assessed in a number of ways:

- The percentage of participants that had previously attempted suicide, and how many times these participants had attempted suicide;
- The degree of suicidal ideation in the sample; and
- Positive ideation, or the extent to which participants were hopeful about the future.

2.2.1 Previous suicide attempts

Of the 85 participants, 13 (15.3%) had previously attempted suicide. The percentage of suicide attempts relative to the whole sample is shown in Figure 4.1. All of the participants who had attempted suicide before were female (20.6% of the female participants). Eight participants had attempted suicide once, 4 participants had attempted suicide twice, and one participant had attempted suicide three times. Therefore, 38.5% of those who attempted suicide had made more than one attempt (5.9% of the sample).

2.2.2 PANSI – The rate of negative suicidal ideation and positive ideation

Figure 4.2 presents a summary of the degree of suicidal ideation (PANSI NI) in the sample. While 28.24% had recently thought about killing themselves, 71.76% of the participants in this study had not recently thought about

suicide. The degree of suicidal ideation was not uniform however – of those who had thought about suicide, half had done so very rarely (14.12%).

Nonetheless, 14.12% of the sample had experienced frequent recent suicidal ideation (thoughts about killing themselves some of the time, a good part of the time or most of the time).

Figure 4.3 summarises the PANSI Positive Ideation scores in the sample. While 68.24% of participants in the study felt optimistic about the future most of the time or a good part of the time, 21.18% felt optimistic some of the time, and 8.24% felt optimistic only very rarely. Within the sample, 2.35% of participants claimed not to feel optimistic at any time.

Figure 4.1 : Percentage of Suicide Attempts

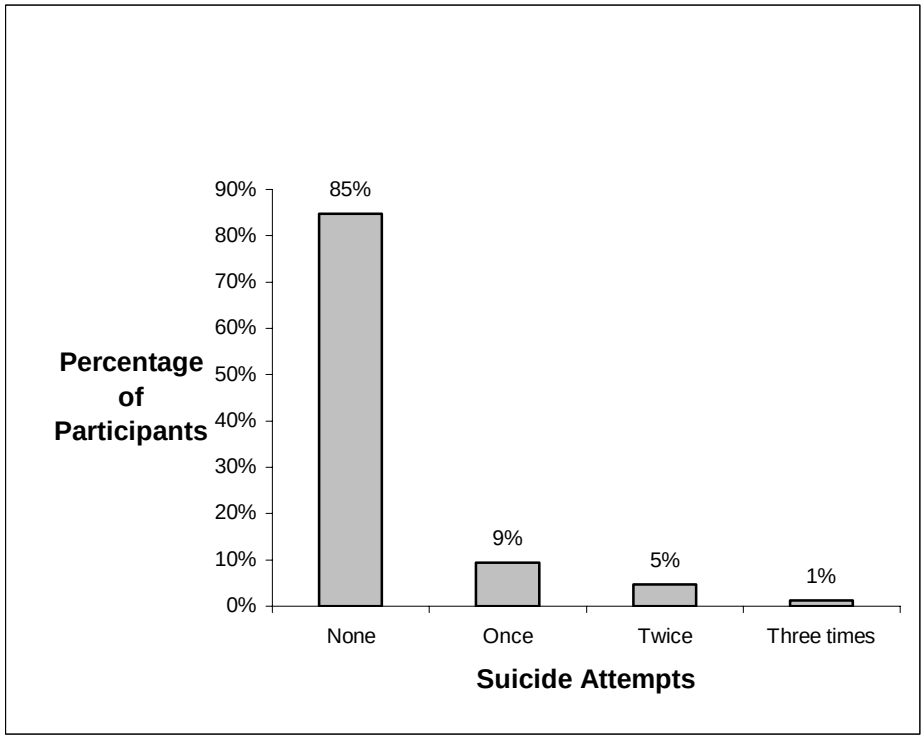


Figure 4.2 : Percentage of Negative Ideation

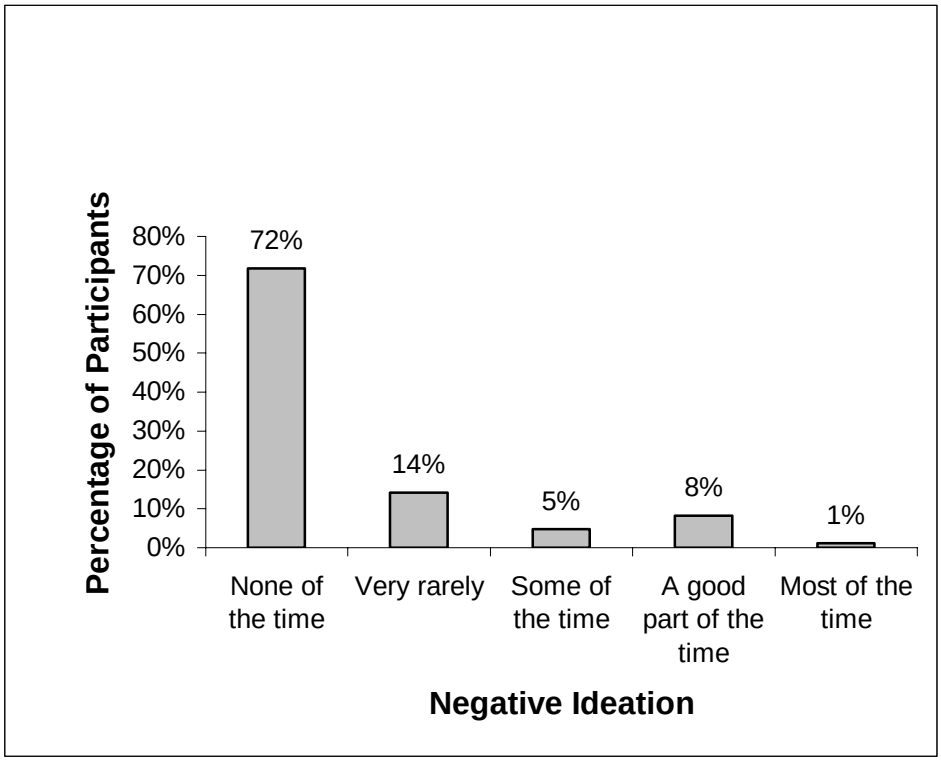
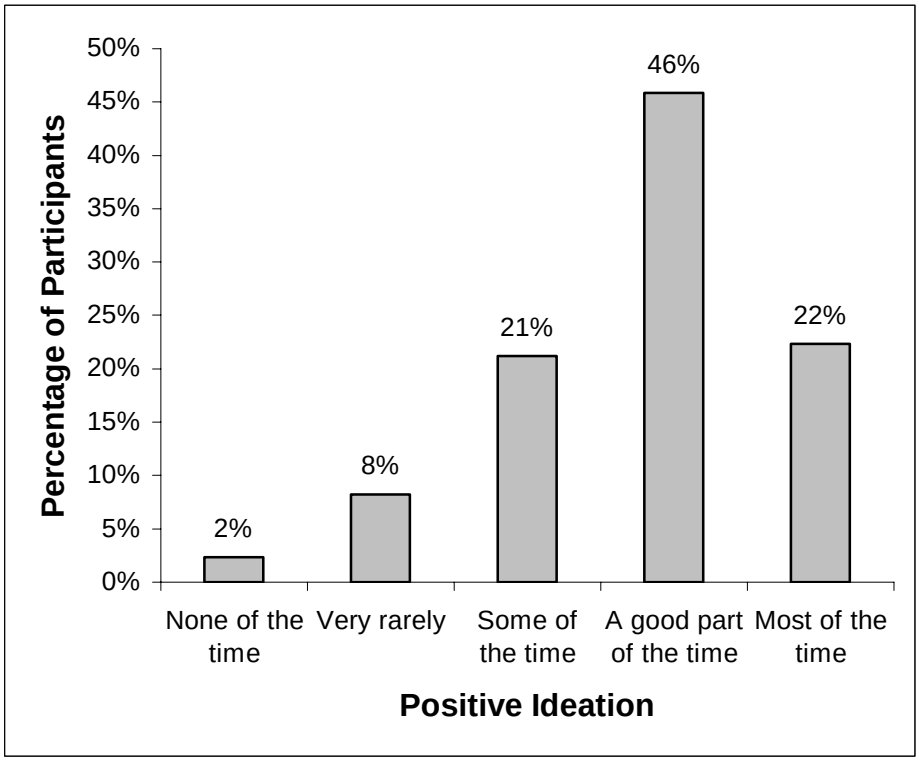


Figure 4.3 : Percentage of Positive Ideation



3 Religiosity and Religious Coping in the Sample

Religiosity and religious coping in the sample were measured in a number of ways:

- Self-ratings by participants regarding their religious affiliation, the importance of religion to them, how frequently they attend religious service(s), and how often they pray outside of a religious service.
- The prevalence of different styles of religious coping.
- The relationship between the religious coping approaches and the indicators of religiosity.

3.1 Indicators of religiosity

Figure 4.4 presents a summary of the religious affiliation of the participants. By far the majority, 60 of the 85 participants (70.59%), was Christian. Seven participants (8.24%) gave Islam as their religion, four (4.71%) indicated that they were Hindus, three (3.53%) were Buddhists, and three (3.53%) gave Judaism as their religion. Eight participants (9.41%) said they were Agnostics, Atheists or followed another religion.

Figure 4.5 summarises the participants' responses regarding the importance of religion to them. The majority of participants, 46 (54.12%), rated religion as being very important to them, while 19 (22.35%) considered religion to be quite important. Ten (11.76%) of the participants were undecided as to the importance of religion, while the same number considered religion to be unimportant to them.

Figure 4.6 presents a summary of participants' responses as to how frequently they attend religious service(s). In this sample, 32 (37.65%) attended religious services weekly or daily, while 20 participants (23.53%) attended religious services monthly. Eighteen participants (21.18%) only attended religious services 2 to 3 times a year, while the remaining 15 participants (17.65%) attended religious services once a year or never.

Figure 4.7 is a representation of the participants' responses to the question of how often they pray outside of a religious service. A total of 54 participants (63.53%) indicated that they prayed either daily or weekly (48 of these, or 56.47% of the sample, prayed daily). Thirty-one participants (36.47%) prayed occasionally or never.

In order to measure whether participants' indications of the importance of religion were consistent with their religious behaviours, their ratings of how important religion was to them were correlated with their ratings regarding frequency of attendance at religious services, and how often they pray outside of a religious service (Table 4.1). There was a significant positive correlation between importance of religion and frequency of attendance at religious services ($r = .652$, $p < .0001$), and also between importance of religion and frequency of prayer outside of religious services ($r = .534$, $p < .0001$).

Figure 4.4 : Religious Affiliation in the Sample

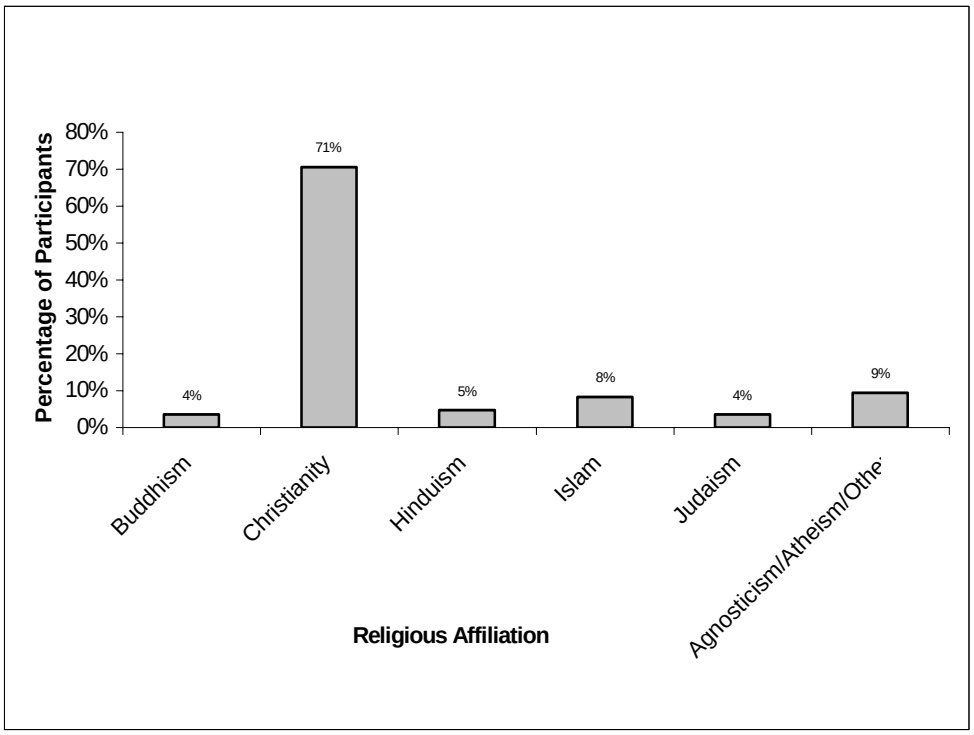


Figure 4.5 : Importance of Religion to Participants

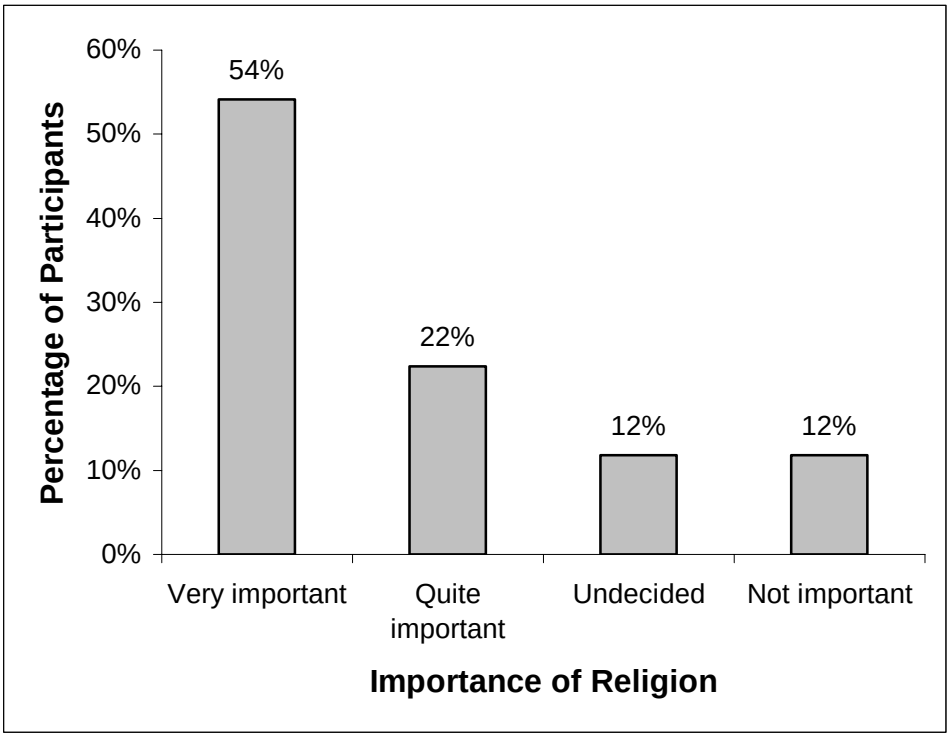


Figure 4.6 : Frequency of Attendance of Religious Services

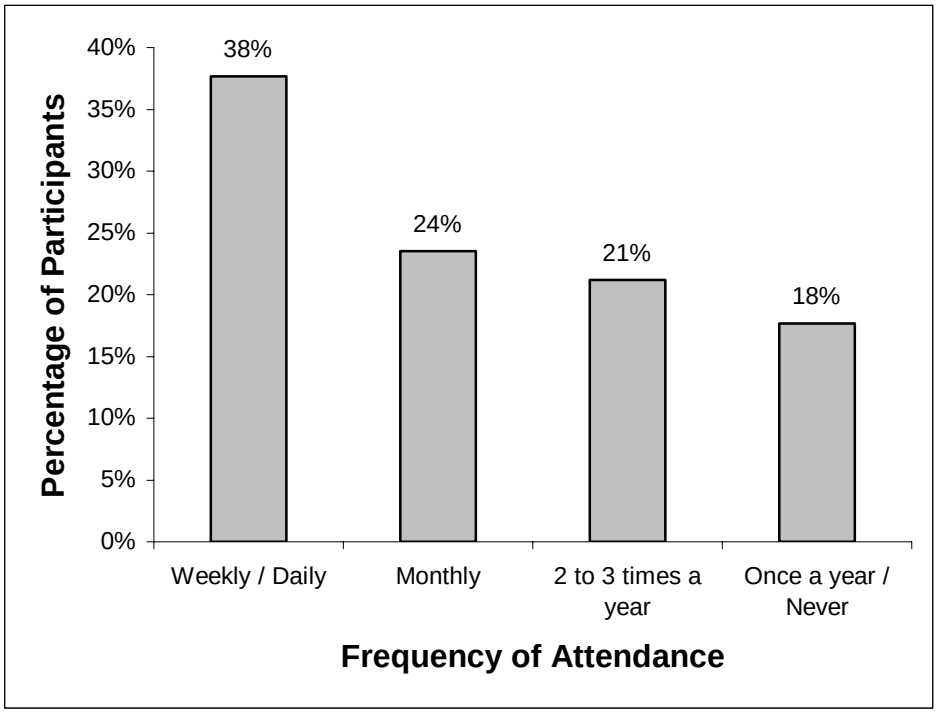


Figure 4.7 : Frequency of Prayer Outside of a Religious Service

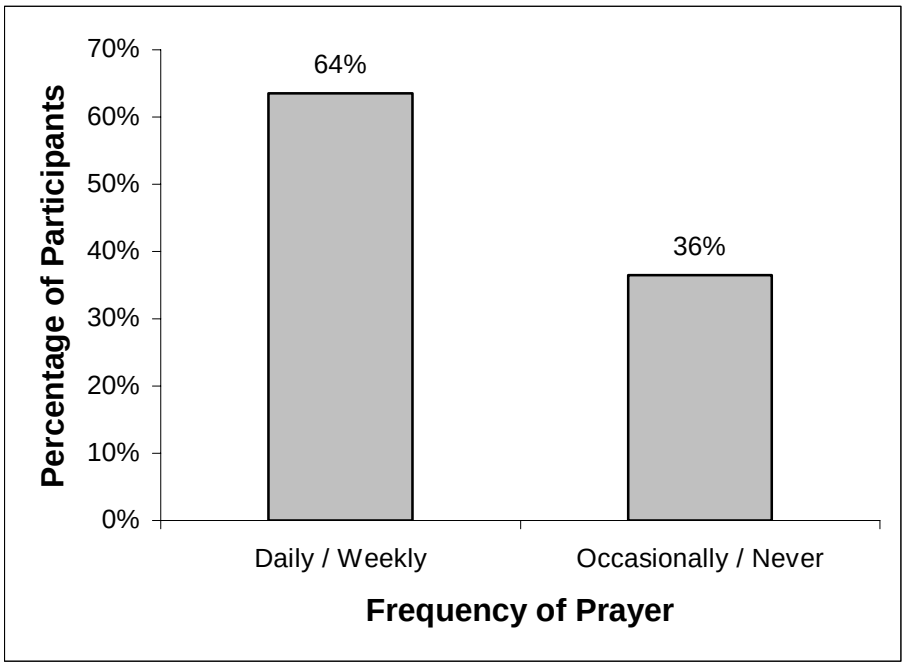


Table 4.1

Pearson Correlation Coefficients - Self-rated Importance of Religion and Religious Behaviours (frequency of service attendance and frequency of prayer outside of religious services)

	Importance of Religion
Frequency of service attendance	*r* = .652 *p* <.0001
Frequency of prayer outside religious services	*r* = .534 *p* <.0001

3.2 **Religious coping styles**

3.2.1 Internal Consistency

A three-way analysis of the Religious Problem-Solving Scale was conducted and the Cronbach coefficient alpha value was .66. However, when the three religious coping subscales were correlated with each other, it became evident that there was a significant positive correlation between the collaborative and deferring approaches (r = .852, p < .0001). There were negative correlations between the collaborative and self-directing approaches (r = - .823, p < .0001), and also between the deferring and self-directing approaches (r = - .687, p < .0001)[1].

As a result, a principal component factor analysis was conducted, and after an equimax orthogonal rotation, only two factors were extracted. The collaborative and deferring styles were reduced to the same factor. See Table 4.2 for the factor structure. This indicates that inventory items relating to the self-directing approach (2, 6, 7, 10, 14 and 18) were represented by Factor Loading 2, while the remaining items, relating to both collaborative and deferring approaches, were all represented by Factor Loading 1.

A Cronbach coefficient alpha was re-calculated on the collaborative and deferring items only, and the result was .96, showing a high level of internal consistency for this as a combined factor. There was also a significant negative correlation between the self-directing and collaborative/deferring approaches (r = - .788, p < .0001). Therefore, for the purposes of this study, only two religious coping styles will be considered, namely the self-directing approach, and the collaborative/deferring approach.

[1] It should be noted that similar correlation patterns have been found in other research using the Religious Problem-Solving Scales, including that of the scales' developers (Pargament et al., 1988) – the collaborative and deferring styles were positively correlated (r = .47), with negative correlations between the collaborative and self-directing styles (r = - .61) and between the deferring and self-directing styles (r = - .37). In Kaiser's (1991) study, there was a substantial correlation between the collaborative and deferring styles (r = .70, p < .001), and both styles correlated negatively with the self-directing style (r = - .73, p < .001, r = - .57, p < .001).

Table 4.2

Factor Structure for the Religious Problem-Solving Scales :

Short Form Inventory

	Factor and Item Description	Factor Loading	
		1	2
	Factor 1: Self-directing approach		
2.	After I've gone through a rough time, I try to make sense of it without relying on God.	.37	.89
6.	I act to solve my problems without God's help.	.37	.88
7.	When faced with trouble, I deal with my feelings without God's help.	.35	.90
10.	When I have difficulty, I decide what it means by myself without help from God.	.35	.91
14.	When deciding on a solution, I make a choice independent of God's input.	.41	.86
18.	When thinking about a difficulty, I try to come up with possible solutions without God's help.	.35	.90
	Factor 2: Collaborative/Deferring approach		
1.	When it comes to deciding how to solve a problem, God and I work together as partners.	.89	.42
4.	When I have a problem, I talk to God about it and together we decide what it means.	.90	.38
9.	When considering a difficult situation, God and I work together to think of possible solutions.	.91	.37
11.	After solving a problem, I work with God to make sense of it.	.90	.36
12.	Together, God and I put my plans into action.	.90	.35
16.	When I feel nervous or anxious about a problem, I work together with God to find a way to relieve my worries.	.91	.38
3.	Rather than trying to come up with the right solution to a problem myself, I let God decide how to deal with it.	.87	.40
5.	In carrying out solutions to my problems, I wait for God to take control and know somehow He will work it out.	.90	.34
8.	When a situation makes me anxious, I wait for God to take those feelings away.	.89	.36
13.	I do not think about different solutions to my problems because God provides them for me.	.89	.35
15.	I don't spend much time thinking about troubles I've had; God makes sense of them for me.	.86	.40
17.	When a troublesome issue arises, I leave it up to God to decide what it means for me.	.90	.34

3.2.2 Predominant response patterns

Forty-nine participants (57.65%) displayed a predominant disposition of collaborative/deferring religious coping, while 35 participants (41.18%) displayed a predominantly self-directing religious coping disposition. One participant displayed equal dispositions towards both approaches, and it should be noted that there was some degree of overlap between the styles for the majority of the participants.

Figure 4.8 presents a summary of the degree of self-directing religious coping in the sample. While 41.18% of the participants in this study were frequently or always self-directing in their coping approach, 42.35% were occasionally self-directing, but 16.47% of the participants were never disposed towards this style.

Figure 4.9 summarises the degree of collaborative/deferring religious coping in the sample. While 52.94% of the participants in the study were frequently or always collaborative/deferring in their religious coping style, 29.41% occasionally adopted this approach, but 17.65% never coped in this way.

Figure 4.8 : Self-Directing Religious Coping

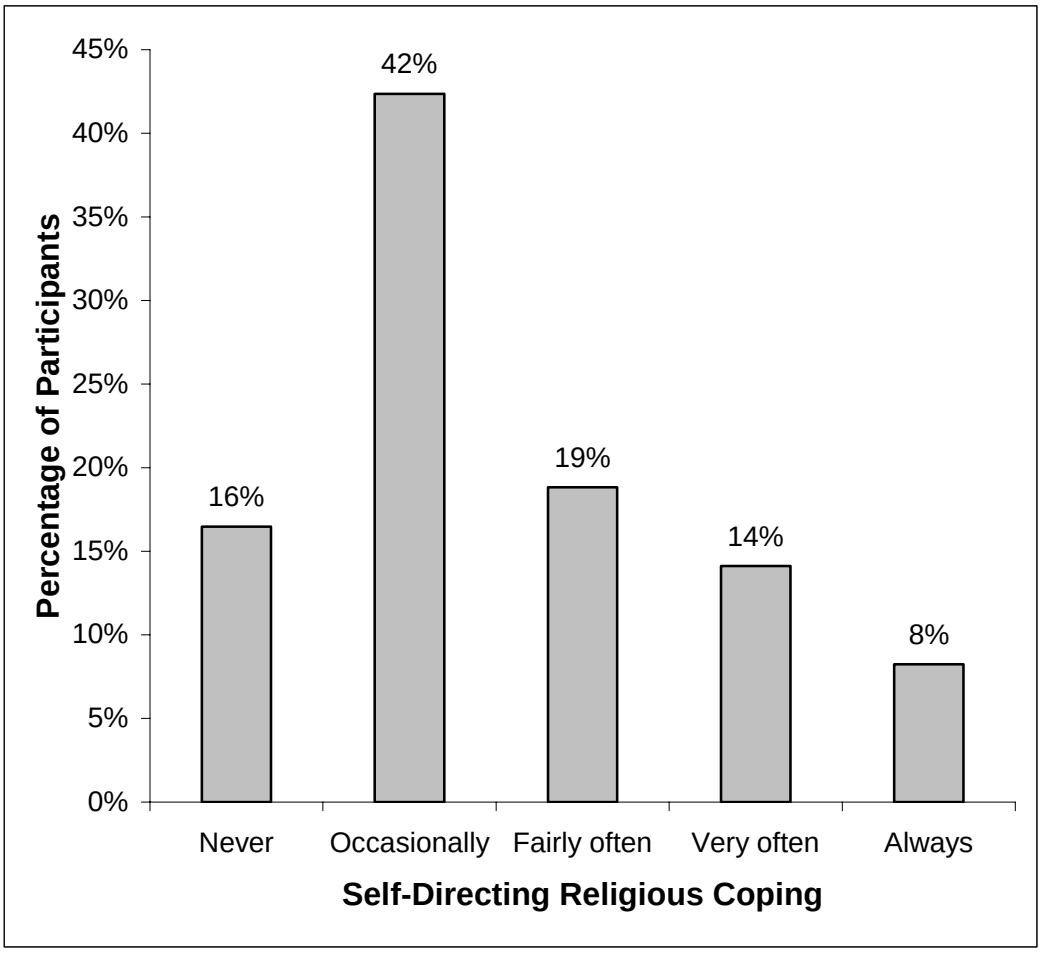
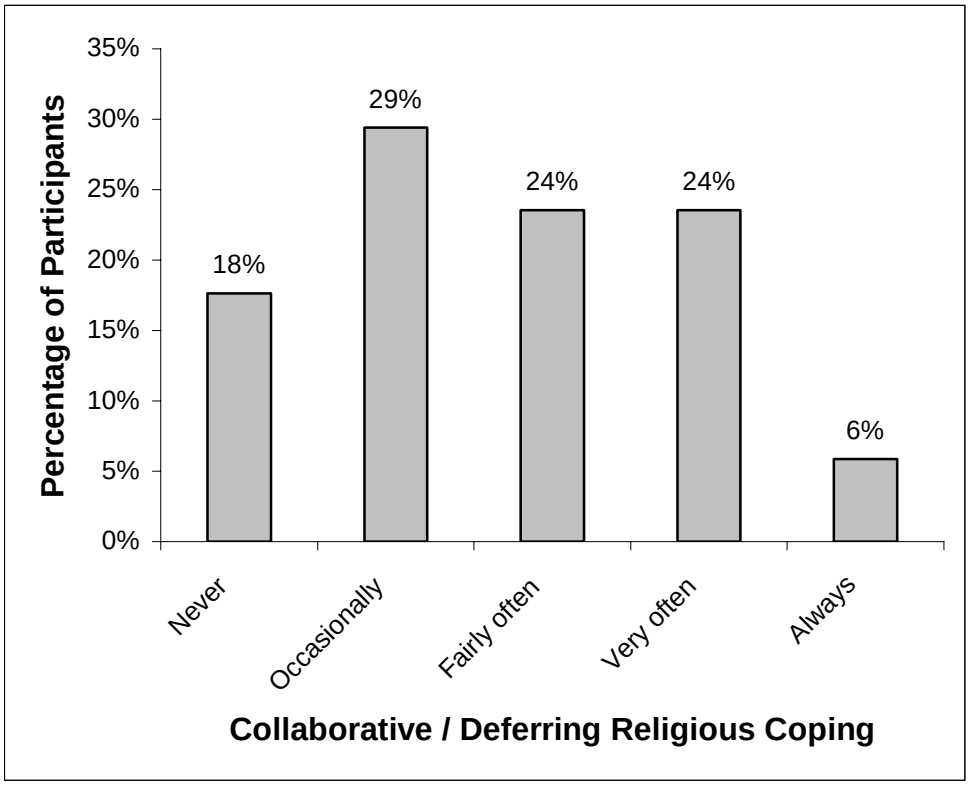


Figure 4.9 : Collaborative / Deferring Religious Coping



3.3 The relationship between the religious coping styles and the indicators of religiosity

One way analyses of variance (ANOVAs) and t-tests were conducted to assess the relationship between the two religious coping approaches and the three different indicators of religiosity, namely how important religion is to the participants, how frequently they attend religious service(s), and how often they pray outside of a religious service.

3.3.1 Relationship between the self-directing religious coping style and the importance of religion

Table 4.3 reflects the mean *self-directing* scores at each level of the *importance of religion* variable, indicating that mean self-directing scores are lower where religion is rated as important and higher when religion is rated as unimportant. Thus participants who were more predisposed to the self-directing style of religious coping were more likely to rate religion as unimportant.

Table 4.4 reflects the analysis of variance regarding the relationship between the *self-directing religious coping approach* and *importance of religion*. This reveals a significant relationship between these two variables ($F = 17.95$, $p < .0001$).

Table 4.3

Mean Self-Directing scores for Participants at different levels of Importance of Religion (N=85)

Self-Directing

Level of Importance of Religion	**N**	**Mean**	**Standard Deviation**
Very Important	46	11.24	4.96
Quite Important	19	15.47	6.10
Undecided	10	18.10	6.10
Unimportant	10	23.90	4.41

Table 4.4

Relationship between Self-Directing Religious Coping Style and Importance of Religion (N=85)

Source	DF	Sum of Squares	Mean Square	F value	Pr>F
Model	3	1520.32	506.77	17.95	< .0001
Error	81	2286.91	28.23		
Corrected Total	84	3807.22			

3.3.2 Relationship between the collaborative/deferring religious coping style and the importance of religion

Table 4.5 reflects the mean *collaborative/deferring* scores at each level of the *importance of religion* variable, indicating that mean collaborative/deferring scores are higher where religion is rated as important and lower where religion is rated as unimportant. Thus participants who were more predisposed to the collaborative/deferring style of religious coping were more likely to rate religion as important.

Table 4.6 reflects the analysis of variance regarding the relationship between the *collaborative/deferring religious coping approach* and *importance of religion*. This reveals a significant relationship between these two variables ($F = 23.67$, $p < .0001$).

Table 4.5

Mean Collaborative/Deferring scores for Participants at different levels of Importance of Religion (N=85)

Collaborative/Deferring

Level of Importance of Religion	**N**	**Mean**	**Standard Deviation**
Very Important	46	19.92	5.94
Quite Important	19	13.72	4.16
Undecided	10	9.50	3.21
Unimportant	10	8.55	2.20

Table 4.6

Relationship between Collaborative/Deferring Religious Coping Style and Importance of Religion (N=85)

Source	DF	Sum of Squares	Mean Square	F value	Pr>F
Model	3	1784.18	594.73	23.67	< .0001
Error	81	2035.07	25.12		
Corrected Total	84	3819.25			

3.3.3 Relationship between the self-directing religious coping style and frequency of attendance of religious services

Table 4.7 reflects the mean *self-directing* scores at each level of the *frequency of service attendance* variable, indicating that mean self-directing scores are higher where attendance is infrequent and lowest where attendance is daily/weekly. Thus participants who were more predisposed to the self-directing style of religious coping were less likely to attend religious services frequently.

Table 4.8 reflects the analysis of variance regarding the relationship between the *self-directing religious coping approach* and *frequency of attendance of religious services*. This reveals a significant relationship between these two variables ($F = 6.36$, $p = .0006$).

Table 4.7

Mean Self-Directing scores for Participants at different levels of Frequency of Service Attendance (N=85)

	Self-Directing		
Level of Frequency of Service Attendance	**N**	**Mean**	**Standard Deviation**
Weekly / Daily	32	11.28	5.26
Monthly	20	14.25	6.51
2 to 3 times a year	18	16.61	6.87
Once a year / Never	15	19.07	6.64

Table 4.8

Relationship between Self-Directing Religious Coping Style and Frequency of Service Attendance (N=85)

Source	DF	Sum of Squares	Mean Square	F value	Pr>F
Model	3	725.79	241.93	6.36	.0006
Error	81	3081.43	38.04		
Corrected Total	84	3807.22			

3.3.4 Relationship between the collaborative/deferring religious coping style and frequency of attendance of religious services

Table 4.9 reflects the mean *collaborative/deferring* scores at each level of the *frequency of service attendance* variable, indicating that mean collaborative/deferring scores are higher where attendance is daily or weekly and lowest where attendance is infrequent. Thus participants who were more predisposed to the collaborative/deferring style of religious coping were more likely to attend religious services frequently.

Table 4.10 reflects the analysis of variance regarding the relationship between the *collaborative/deferring religious coping approach* and *frequency of attendance of religious services*. This reveals a significant relationship between these two variables ($F = 6.66$, $p = .0004$).

Table 4.9

Mean Collaborative/Deferring scores for Participants at different levels of Frequency of Service Attendance (N=85)

		Collaborative/Deferring	
Level of Frequency of Service Attendance	**N**	**Mean**	**Standard Deviation**
Weekly / Daily	32	18.80	5.25
Monthly	20	17.25	7.72
2 to 3 times a year	18	13.67	6.71
Once a year / Never	15	11.00	4.71

Table 4.10

Relationship between Collaborative/Deferring Religious Coping Style and Frequency of Attendance (N=85)

Source	DF	Sum of Squares	Mean Square	F value	Pr>F
Model	3	755.91	251.97	6.66	.0004
Error	81	3063.34	37.82		
Corrected Total	84	3819.25			

3.3.5 Relationships between the self-directing and collaborative/deferring religious coping styles and frequency of prayer outside of religious services

Table 4.11 reflects paired t-tests regarding the relationship between the two religious coping approaches and frequency of prayer outside of religious services. This reveals significant relationships between *self-directing* and *frequency of prayer* ($t = 20.12$, $p < .0001$) and between *collaborative/deferring* and *frequency of prayer* ($t = 20.46$, $p < .0001$).

Table 4.12 reflects the mean *self-directing* scores at each level of the *frequency of prayer* variable, indicating that mean self-directing scores are lower where prayer occurs daily or weekly and higher where prayer occurs occasionally or never. Thus participants who were more predisposed to the self-directing style of religious coping were less likely to engage in frequent prayer.

Table 4.13 reflects the mean *collaborative/deferring* scores at each level of the *frequency of prayer* variable, indicating that mean collaborative/deferring scores are higher where prayer occurs daily or weekly and lower where prayer occurs occasionally or never. Thus participants who were more predisposed to the collaborative/deferring style of religious coping were more likely to engage in frequent prayer.

Table 4.11

Relationship between Religious Coping Styles and Frequency of Prayer outside of Religious Services (N=85)

Difference	DF	t value	Pr>t
Self-Directing – Prayer	84	20.12	< .0001
Collaborative/Deferring – Prayer	84	20.46	< .0001

Table 4.12

Mean Self-Directing scores for participants at Different Levels of Frequency of Prayer outside of Religious Services (N=85)

Self-Directing

Level of Frequency of Prayer	**N**	**Mean**	**Standard Deviation**
Daily / Weekly	54	11.59 *	4.97
Occasionally / Never	31	19.52 *	6.48

***** These means are significantly different ($p < .0001$) – refer to Table 4.11

Table 4.13

Mean Collaborative/Deferring scores for Participants at Different Levels of Frequency of Prayer outside of Religious Services (N=85)

Collaborative/Deferring

Level of Frequency of Prayer	**N**	**Mean**	**Standard Deviation**
Daily / Weekly	54	18.92 *	5.54
Occasionally / Never	31	10.84 *	5.50

***** These means are significantly different ($p < .0001$) – refer to Table 4.11

4 The Relationship between the Indicators of Religiosity and Suicidal Ideation / Positive Ideation

The relationships between the indicators of religious salience and participation and suicidal / positive ideation were investigated by correlating the scores for importance of religion, frequency of attendance at religious services and frequency of prayer outside of religious services with the PANSI negative ideation (NI) and positive ideation (PI) scores. Significant correlations indicate an association between the two variables, and the size of the correlation indicates the strength of the relationship.

Table 4.14 provides descriptive statistics for the following variables: PANSI negative ideation (NI), PANSI positive ideation (PI), importance of religion, frequency of attendance, frequency of prayer, self-directing religious coping style (SD), and collaborative/deferring religious coping style (C/D).

Table 4.15 indicates the Pearson Correlation Coefficients for the correlations between negative ideation (NI) and positive ideation (PI), and the indicators of religious salience and participation. The only significant relationship to emerge was a small but significant positive relationship between importance of religion and negative ideation (r = .297, p = .006). This suggests that participants scoring high on the suicidal (negative) ideation dimension were more likely to rate religion as important to them. Positive ideation (PI) was not significantly related to any of the indicators of religious salience and participation.

Table 4.14

Descriptive Statistics for PANSI NI, PANSI PI, Indicators of Religious Salience and Participation, Religious Coping SD and Religious Coping C/D

	MINIMUM	MAXIMUM	MEAN	STANDARD DEVIATION
PANSI				
PANSI NI	1.00	4.50	1.55	.93
PANSI PI	1.17	5.00	3.66	.89
RELIGIOSITY INDICATORS				
IMPORTANCE OF RELIGION	0	3.00	.81	1.05
FREQUENCY OF ATTENDANCE	0	3.00	1.19	1.13
FREQUENCY OF PRAYER	0	1.00	.36	.48
RELIGIOUS COPING				
SD : SELF-DIRECTING	6.00	30.00	14.48	6.73
C/D:COLLABORATIVE/ DEFERRING	6.00	30.00	15.97	6.74

Table 4.15

Correlation between Negative Ideation and Positive Ideation, and Indicators of Religious Salience and Participation (N=85)

	NI	**PI**
RELIGIOUS IMPORTANCE	***r* = .297** ***p* = .006**	*r* = - .247 *p* = .022
ATTENDANCE FREQUENCY	*r* = .149 *p* = .173	*r* = - .108 *p* = .325
PRAYER FREQUENCY	*r* = .265 *p* = .014	*r* = - .119 *p* = .279

5 The Relationship between Religious Coping and Suicidal Ideation / Positive Ideation

The relationships between the religious coping styles and suicidal ideation and positive ideation was investigated by correlating the self-directing (SD) and collaborative/deferring (C/D) scores with the PANSI negative ideation (NI) and positive ideation (PI) scores. Significant correlations indicate an association between the two variables, and the size of the correlation indicates the strength of the relationship.

Table 4.16 indicates the Pearson Correlation Coefficients for the correlations between negative ideation (NI) and positive ideation (PI), and the two approaches to religious coping. NI was significantly but moderately correlated with the self-directing religious coping approach (SD) (r = - .331, p = .002), and with the collaborative/deferring religious coping style (C/D) (r = .301, p = .005). Positive ideation (PI) was not significantly related to either religious coping style.

Analysis of the correlations between the religious coping styles and suicidal ideation suggests that suicidal ideation is positively related to the collaborative/deferring religious coping approach, but negatively related to the self-directing approach. Another indicator of this association is that, of the 13 individuals in the sample who had previously attempted suicide, 9 (69.2%) were predominantly collaborative/deferring in their approach to religious coping. Three (23.1%) were predominantly self-directing, while the remaining individual showed an equal propensity to both the self-directing and collaborative/deferring approaches.

Table 4.16

Correlation between Negative Ideation and Positive Ideation, and Self-Directing and Collaborative/Deferring Religious Coping (N=85)

	NI	**PI**
SD	***r* = - .331** ***p* = .002**	*r* = .112 *p* = .305
C/D	***r* = .301** ***p* = .005**	*r* = - .105 *p* = .341

6 Summary of Results

These results indicate that suicidal behaviour and ideation is high within this sample. Of the 85 participants, 15.3% had previously attempted suicide, and 38.5% of these (5.9% of the sample) had made more than one suicide attempt. In addition, 28.24% had recently thought about taking their own lives. While 68.24% of participants felt optimistic about the future most of the time or a good part of the time, 8.24% rarely felt optimistic and 2.35% did not feel optimistic at any time recently.

The levels of religiosity in this sample were high, with the majority of participants (54.12%) rating religion as being very important to them, 37.65% attending religious services weekly or daily, and 63.53% reporting that they pray either daily or weekly. There was a significant positive correlation between importance of religion and frequency of attendance at religious services, as well as between importance of religion and frequency of prayer outside of religious services, suggesting that participants' indications of the importance of religion to them were consistent with their religious behaviours.

Within the sample, 57.7% of participants displayed a predominant disposition of collaborative/deferring religious coping, while 41.2% displayed a predominantly self-directing religious coping disposition. Again this suggests that the level of religiosity in this sample is fairly high. While 41.2% of participants were frequently or always self-directing, 16.5% of participants were never disposed towards this approach. Some 53% of the participants were frequently or always collaborative / deferring in their religious coping style, while 17.7% never coped in this way.

Significant relationships appear to exist between the two different religious coping approaches and the indicators of religiosity. Participants who were more predisposed to the self-directing approach were more likely to rate religion as unimportant, and attended religious services and prayed outside of religious services relatively infrequently. By contrast, those participants who were more predisposed to the collaborative/deferring religious coping approach were more likely to rate religion as important, and attended religious

services and prayed outside of religious services more frequently. This suggests that there is consistency between participants' degree of religiosity and their predisposition towards a more self-directing or collaborative/deferring approach to religious coping.

A relationship appears to exist between religious salience and the two religious coping approaches, on the one hand, and suicidal ideation, on the other – negative (suicidal) ideation was significantly positively related to religious salience and the collaborative/deferring approach, but significantly negatively related to the self-directing approach. In addition, 69% of the participants in the sample who had previously attempted suicide indicated a preference for the collaborative/deferring religious coping style, while only 23% indicated they tended to use the self-directing approach. Positive ideation was not significantly related to the indicators of religious salience and participation, or to either religious coping style.

Therefore, some of the research hypotheses were confirmed by the results:

- The prevalence of suicidal ideation in the sample was high.
- There is a negative relationship between the indicators of religiosity and the self-directing religious coping style.
- There is a positive relationship between these indicators and the collaborative/deferring religious coping style.

Where the hypotheses did not predict a positive or negative relationship, the direction of these has now been confirmed:

- The relationship between negative (suicidal) ideation and the self-directing religious coping style is negative.
- The relationship between negative (suicidal) ideation and the collaborative religious coping style is positive.

Some of the hypotheses have been refuted by the results:

- The relationship between religious salience and negative (suicidal) ideation is positive and not negative as predicted.

- Neither of the indicators of religious participation (attendance and prayer) was related, either positively or negatively, to negative (suicidal) ideation.
- The deferring religious coping style has been conflated with the collaborative style, and the relationship of this combined factor with negative (suicidal) ideation is positive and not negative as predicted.
- No relationship, either positive or negative, exists between positive ideation and the indicators of religious salience and participation, or the different approaches to religious coping.

These findings will be discussed in more detail in the next chapter.

CHAPTER FIVE : DISCUSSION

This chapter will commence with a review of the high levels of both suicidal behaviour and religiosity in the sample, and the characteristics of the sample will be examined as a possible explanation for this. The positive association between suicidal ideation and religiosity will then be examined in depth, with a particular focus on the possible impact of positive and negative religious coping. A cognitive-affective-behavioural model of suicidality will be used in order to explain how the cognitive and affective consequences of negative religious coping may contribute to suicidal ideation. Finally, the research design limitations will be examined as another possible explanatory factor for the results in this study.

1 Suicidal Behaviour and Ideation in the Sample

There were high levels of both suicidal behaviour and ideation in the sample investigated, thus confirming the first research hypothesis. Fifteen percent had previously attempted suicide, and 6% of the sample had attempted suicide more than once (four participants had made two attempts, and one had attempted suicide three times). Thus one in seven young adults had tried to take his or her own life, and one in seventeen had made more than one attempt. It should be noted that the latter grouping could be regarded as multiple suicide attempters who are considered to have a more severe clinical profile than single suicide attempters (Forman, Berk, Henriques, Brown, and Beck, 2004).

This suicide attempt rate is considerably higher than in comparable samples, whether international or local. The Spring 2000 National College Health Assessment Survey of 15,977 university and college students in the USA revealed that only 1.5% had attempted suicide in the previous 12 months, and of these 0.5% had made three or more attempts (Kisch et al., 2005). In contrast, Edwards and Holden (2001) quoted higher lifetime prevalence of attempted suicide in their study of 298 Canadian undergraduate student participants – 4% of males and 11% of females (7% of the total) had made one or more suicide attempts in their lives. In two South African suicide studies, 10% (Mayekiso & Ngcaba, 2000) and 6% (Peirson, 2001) of the samples of university students reported previous suicide attempts.

The prevalence of suicide attempts in this study is however in line with the APA's (2004) estimate that between 10 and 20% of adolescent girls report having attempted suicide compared to approximately 4 to 10% of boys. It should be noted that international epidemiological research on suicide rates indicates that in many parts of the world, adolescents and young adults are particularly vulnerable to dying by suicide (CDC, 2003, cited in Kisch et al., 2005; Johnson et al., 2000; De Leo & Spathonis, 2004), and that the rate of suicides in these populations has increased virtually threefold from 1952 to 1995 (CDC, 2001).

All of the participants in the current sample who had previously attempted suicide were female (constituting 21% of the female participants), and this gender bias is found in the majority of suicide attempts (APA, 2004; Bosch et al., 1995; D'Zurilla et al., 1998). However, the gender bias reverses for completed suicides. In line with international trends (Johnson et al., 2000), there are in South Africa nearly five male suicide victims to every female (Medical Research Council National Injury Surveillance System, 2003, cited in Padayachee, 2003a), although female suicide rates have increased at least threefold in the last five years (Meel, 2005, cited in Horner & Fredericks, 2005).

When suicidal ideation is examined, 28% of the sample had recently contemplated committing suicide. This is high, implying that almost one in three students had experienced recent suicidal ideation. The degree of suicidal ideation was not uniform however – of those who had thought about suicide, half had done so very rarely (14%). Nonetheless, 14% of the sample had experienced frequent recent suicidal ideation (thoughts about killing themselves some of the time, a good part of the time or most of the time). By contrast, the Spring 2000 National College Health Assessment Survey referred to above revealed that 9.5% of students had seriously considered attempting suicide in the previous 12 months (Kisch et al., 2005). Similarly, in the World Health Organisation survey of 5438 adult patients from 15 international primary health care centres, 9.7% of patients admitted having suicidal ideations during the previous two weeks (Linden et al., 2003). However the APA (2004) quoted 1997 high school survey data indicating that

27% of females and 15% of males had seriously considered suicide. Similarly, in the two South African studies referred to previously, 26% (Mayekiso & Ngcaba, 2000) and 31% (Peirson, 2001) of the students sampled had considered suicide.

While the majority of participants (89%) in this study had some degree of optimism about the future, 8% of participants very rarely felt optimistic and 2% had not felt optimistic at any time recently. As has been stated, hopelessness is associated with both suicidal ideation and behaviour (Beck et al., 1985, D'Zurilla et al., 1998; Edwards & Holden, 2001; Joiner & Rudd, 1995; Weber et al., 1997). In the Spring 2000 National College Health Assessment Survey, 24% of students who felt hopeless on three or more occasions had seriously considered suicide (Kisch et al., 2005). When the sense of hopelessness in a suicidal individual is replaced by feelings of optimism about the future, the active motivation to die is stemmed, and suicidal behaviour abates (Osman et al., 1998; Rudd, 2000).

In summary therefore, the level of suicidal behaviour in this sample was considerably higher than in comparable populations in both South Africa and the USA, and while the level of suicidal ideation was similar to that in previous South African studies on comparable populations, it is much higher than in American students and a large international study of general practice patients[1]. This is cause for grave concern. Considering that approximately 35 to 45% of adolescents who complete suicide have previously attempted it (APA, 2004), five or six of the suicide attempters in the sample in this study may eventually kill themselves. In addition, given that between 2.6% and 5.5% of suicide ideators do eventually commit suicide (Scocco et al., 2000), at least one of the students who had experienced suicidal ideation in the previous two weeks was at risk of completing suicide. Furthermore, if these results are generalizable to other young adults, the potential suicide rate in this age group is alarming.

[1] When making these comparisons, the temporal nature of the data must be borne in mind. The US and South African data were collected between 1999 and 2002, and it is generally claimed that rates of suicidal behaviour are increasing, particularly in the 20-24 year age group (APA, 2004; Kisch et al., 2005; Silverman et al., 1997).

The Big Ten Student Suicide Study in the USA (1980-1990) reported a suicide rate of 7.5 per 100,000 (or 0.0075%) for college and university students, compared to a national rate of 15 per 100,000 for a sample matched by age, gender and race (Silverman et al., 1997)[1]. The overall South African suicide rate is 17.2 per 100,000 (Schlebusch, 2003, cited in Padayachee, 2003b). While there are no reliable data for suicide rates at South African universities, it is known that young men in South Africa are particularly vulnerable to death by suicide; there has been a 48% increase in Black suicides in the past ten years (Schlebusch, 2005, cited in Horner & Fredericks, 2005); and between 10 and 12% of all patients referred to general hospitals in the past few years for psychological or psychiatric treatment were non-fatal suicide attempters (South African National Injury Mortality Surveillance System, 2005, cited in Sookha, 2005). This suggests that suicide is a much more serious phenomenon in South Africa than in the USA.

Since it has been argued that cultural differences influence the suicide rates in different countries (Jahangir et al., 1998; Leenaars & Domino, 1993; Wassenaar, van der Veen & Pillay, 1998), it is important to ask what factors could be influencing the high rates of suicidal behaviour in South Africa. The increase in suicide rates has been attributed to stress, urbanization, disintegration of the family, HIV/AIDS and, in general, inability to cope with the massive sociopolitical changes that have occurred in South African society (Laubscher, 2003; Schlebusch, 2005, cited in Horner & Fredericks, 2005). Stressors encountered by students include HIV/AIDS, financial problems, finding employment, high failure rates, and language barriers (Kodwa, cited in Munshi, 2005). Schlebusch (2003, cited in Padayachee, 2003b) highlighted suicide risk among Black adolescents who are under pressure to succeed academically, but often lack the means to finance their tertiary studies, and have no guarantee of employment after graduation. The demographics of the sample and how this might be related to the extent of suicidal behaviour will be examined in more detail in paragraph 3.

[1] It should be noted that this study is now at least 15 years out of date, and the authors report that the suicide rate for young adults (20-24) approximately doubled in the decade prior to their survey (Silverman et al., 1997). The current suicide rate among college and university students in the USA may well now be higher.

2 Religiosity and Religious Coping in the Sample

The majority of the sample (70.6%) was Christian, 8.2% gave Islam as their religion, 4.7% indicated they were Hindus, 3.5% were Buddhists, and 3.5% gave Judaism as their religion. The remaining 9.4% said they were agnostics, atheists or followers of another religion.

2.1 Religiosity

There was a high level of religiosity in the sample, with 54% of participants rating religion as being very important to them plus a further 22% rating religion as quite important to them. A significant majority, 61.1%, attended religious services daily, weekly or monthly. These percentages are higher than comparable US data. Survey data from 34,129 American adolescents (12-to-18 age group) in the years 1987 to 1994 revealed highly stable response patterns – 54% to 59% rated religion as 'pretty important' or 'very important', and 46% to 50% attended church at least monthly (Donahue & Benson, 1995). These data are of course for an age group younger than the participants in this study, and Donahue and Benson (1995) cited studies that indicate that religiousness tends to decline over the course of adolescence. In a 2002 Gallup poll, 50% of 18-to-29 year old Americans considered organized religion to be very important (Codrington & Grant-Marshall, 2004). In the current study, 54% of the participants rated religion as being very important to them, which again indicates the religiosity of this sample.

Prayer is practised by three out of four American adults without any formal religious affiliation, and one study indicates that 40.1% of those in the age category 18-to-30 prayed at least daily (Levin & Taylor, 1997). The researchers pointed out that this percentage is high in light of the trend towards religious apostasy in young Americans. In the current study, 56.5% of the participants indicated that they pray daily, which again suggests a higher level of religiosity than in a comparable American sample.

Significant positive associations between importance of religion on the one hand, and both frequency of attendance at religious services (r = .652, p < .0001) and frequency of prayer outside of religious services (r = .534, p <

.0001) on the other, indicates consistency between participants' indications of the importance of religion to them and their actual religious behaviours. Therefore, social desirability bias does not appear to have influenced participants' responses.

2.2 **Religious coping**

The collaborative/deferring religious coping style was the predominant disposition of the majority of participants (57.7%), while 41.2% were predisposed to the self-directing approach. There was some overlap between the styles, but while 52.9% of the participants were frequently or always collaborative/deferring in their religious coping style, 17.7% never coped in this way. With regard to the self-directing approach, 41.2% of participants frequently or always adopted this approach, while 16.5% never used this style. These results are consistent with the high levels of religiosity in this sample – in Pargament et al.'s (1988) and other subsequent research, the collaborative and deferring religious approaches were positively associated with several measures of religiosity such as frequency of church attendance and of prayer, and religious salience (see below for similar associations in this study). With regard to the positive relationship between the collaborative and deferring styles, Pargament et al. (1988) accounted for this by suggesting that people who are likely to use a collaborative approach in one situation are more likely to use a deferring approach in that or in other situations. Also, those who score higher on both measures have:

> A more comprehensive religious coping system, collaborating with God in some situations and deferring to God in others. Or perhaps collaboration is often mixed with some deference in coping. God may be a partner in coping, but a senior partner (Pargament, 1997, p. 469)[1].

Significant relationships were found between the two religious coping approaches and the religiosity indicators, and the second and third research hypotheses are therefore confirmed by these results. Participants who were

[1] As an example of how the two styles might be mixed, Pargament (1997, p. 469) quoted from Dietrich Bonhoeffer (1971), a theologian imprisoned by the Nazis during World War II: "I believe that God can and will bring good out of evil, even out of the greatest evil. For that purpose he needs men who make the best use of everything. I believe that God will give us the strength we need to help us resist in all times of distress. But he never gives it in advance, lest we should rely on ourselves and not on him alone".

more predisposed towards the collaborative/deferring religious coping approach were also more likely to rate religion as important to them, and indicated more frequent attendance of religious services and prayer outside of religious services. By contrast, participants who were more predisposed towards the self-directing religious coping style tended to rate religion as unimportant, and attended religious services and prayed outside of religious services infrequently. In other words, as could be anticipated, more religious participants were more likely to adopt the collaborative/deferring religious coping style, and less religious participants were more likely to rely on themselves rather than on God in solving problems. These associations have also emerged in other studies using the Religious Problem-Solving Scales and religiosity indicators, including undergraduate student samples (Kaiser, 1991; Maynard et al., 2001; Pargament et al., 1988). However, Maynard et al. (2001) pointed out that the directionality of this relationship is not clear, and question for example to what extent self-reliance is the result of disappointment in organized religion, or whether successful outcomes from self-reliance are a deterrent to greater involvement in religion.

3 Influence of the Sample Composition

The sample that participated in this research has some characteristics that are significant in the context of the core research question, which is the relationship between religiosity and religious coping, and suicidal ideation.

Firstly, 74.1% of the participants were female, a reflection of the predominance of female psychology students at the University of the Witwatersrand. Females tend to be more religious than males at all ages including adolescence and young adulthood (Clarke et al., 2003; Donahue & Benson, 1995; Levin & Taylor, 1997; Strawbridge et al., 1998). Females are also more prone to suicidal ideation and suicide attempts (Linden et al., 2003; Mazza & Reynolds, 1998), and female respondents to self-report questionnaires may be more willing than males to report more negative affective experiences (D'Zurilla et al., 1998). Therefore, the relatively high levels of suicidal ideation and behaviour reported in the results, together with

the relatively high level of religiosity of the sample, may be the result of the gender skew in the sample.

Secondly, in this study, 51% of the participants were Black, compared to 24% White and 19% Indian. The 48% increase in the suicide rate in the Black community in the past ten years referred to previously bears repeating here (Schlebusch, 2005, cited in Horner & Fredericks, 2005). In paragraph 1 of this chapter, several unique predisposing factors in South Africa were mentioned, including inability to deal with sociopolitical change, family disintegration, HIV/AIDS and the particular pressures on Black students, including academic pressure, financial burdens and the need to find employment. The question that must be asked about the sample in this study is whether Black students in South Africa[1] are more vulnerable to suicidal behaviour than those from other cultural groups. If so, the high levels of suicidal ideation and behaviour in this sample can perhaps be attributed to cultural factors.

The majority of participants (71%) were Christian, with very few stating an adherence to any other religion. The role of the Christian church in South Africa has changed since the apartheid era, resulting in diminishing church involvement by those for whom the church was a source of security and comfort in the context of anti-apartheid efforts originating from within the church community (Laubscher, 2003). In addition, international research reveals that, due to secularization and urbanization (among other sociocultural trends) (Stack, 2000; Stack & Wasserman, 1992), church attendance has dropped in many countries (e.g. Canada, Britain, France, Germany, the Netherlands, and the Scandinavian countries, but significantly not in the USA) (Bibby, 1993, cited in Hood et al., 1996). Since church attendance is closely associated with reduced levels of suicide ideology, particularly for women (Neeleman & Lewis, 1999), declining church attendance implies that the church's capacity to prevent suicide has diminished (Stack & Wasserman, 1992). Stack (2000) notes that each 1% drop in church attendance is associated with an increase of .59% in youth

[1] In considering whether students are more vulnerable to suicide than their counterparts in the general population, the Big Ten Student Suicide Study in the USA reported a suicide rate of 7.5 per 100,000 for college and university students from 1980 to 1990, compared to a national rate of 15 per 100,000 for a sample matched by age, gender and race (suggesting that university attendance in the USA is not in itself a risk factor) (Silverman et al., 1997).

suicide rates. Islam appears to have more influence on its adherents in terms of proscriptions against suicide (Jahangir et al., 1998; Simpson & Conklin, 1989). In this sample, the preponderance of Christians perhaps accounts for the higher than expected levels of suicidal ideation – a more Muslim sample may not have responded in this way.

However, this sample reported fairly frequent attendance at religious services, and the high levels of religiosity may be due to the fact that Black students are perhaps more religious than those from other ethnic groups. This is suggested by the high proportion of the adult Black community involved in organized religion, and the known influence that parents have on their children (including those of university age) with regard to core religious beliefs and practices (Hunsberger, 1985, cited in Hood et al, 1996). It could therefore be expected that the religious stigma associated with suicide would diminish the potential for suicidal ideation in this population (Laubscher, 2003). However, the cultural pressures these students may be experiencing could diminish the possible influence of their religious networks. Pescosolido and Georgianna (1989) originated the *religious networks approach* emphasizing the importance of the social bonds in religion that mediate the religion-suicide link, and they make the important point that as long as the larger society is not in crisis, culture-affirming religions provide support. However, when there is cultural crisis in the larger community, religious structures and networks will often be in crisis also.

4 The Relationship between Religious Salience and Coping and Suicidal Ideation

A relationship appears to exist between religious salience and the two approaches to religious coping, and suicidal ideation. Importance of religion was significantly but moderately positively related to negative or suicidal ideation (r = .297, p = .006). Similarly, negative or suicidal ideation was significantly but moderately positively related to the collaborative/deferring religious coping approach (r = .301, p = .005), but was significantly but moderately negatively related to the self-directing approach to religious

coping (r = - .331, p = .002). Positive ideation was not significantly related to either religious coping style.

These results suggest that participants scoring high on the suicidal (negative) ideation dimension were more likely to rate religion as important to them and to adopt the collaborative/deferring approach to religious coping. In line with this, 69% of the participants who had previously attempted suicide indicated that they tended to use the collaborative/deferring approach, while only 23% showed a preference for the self-directing approach.

These findings contradict the research hypotheses in a number of ways. It was predicted, for example, that there would be a negative relationship between suicidal ideation, on the one hand, and the indicators of religiosity and the deferring religious coping style, on the other, because a higher degree of religiosity was expected to act as an inherent barrier to suicidal ideation. While the direction of the relationships between negative ideation and the self-directing and collaborative styles was not predicted, it was assumed that a negative relationship would imply that the particular religious coping style was protective, while a positive relationship would suggest that the style might facilitate suicidal ideation. Finally, positive ideation was expected to be positively associated with the self-directing and collaborative religious coping styles, and negatively associated with the deferring approach.

Underlying these hypotheses was the basic assumption, drawn from the majority of both sociological and psychological studies into religion and suicide, that religiosity would protect individuals from suicidality. Given the significant levels of religiosity in this sample (including high salience of religion, frequent religious service attendance and frequent prayer), research would suggest that these young people (the women in particular) would be less likely to have experienced suicidal ideation or attempts (Neeleman & Lewis, 1999; Pescosolido & Georgianna, 1989; Stack & Wasserman, 1995). However, the opposite appears to be true – the prevalence of suicidal behaviour is high, and there is a positive association between religiosity (expressed in terms of higher religious salience, and use of the collaborative/deferring religious coping style) and suicidal ideation and

attempts, while, for the less religious, the association is negative. These apparent contradictions will be explored further in the next section.

At the outset, it should be borne in mind that as the literature review suggests, it is not always the case that religiosity protects individuals from suicidality, or indeed other signs of psychological distress. Religious strain or spiritual distress has been shown to be associated with poorer psychological functioning, including increased guilt (Koenig, 2001/2b) and shame (Koenig, 2000; Strawbridge et al., 1998), greater depression and suicidality (Exline et al., 2000).

4.1 Helpful versus harmful religious coping: how religiousness might be related to suicidal ideation

It has been pointed out that both religion and psychological functioning are complex multidimensional constructs (Paloutzian & Kirkpatrick, 1995), and researchers in the field of the psychology of religion have emphasized the need to focus on particular dimensions of both religion and psychological functioning in order to avoid making bland and meaningless generalizations (McCullough & Larson, 1998). In this study, religious coping was the key dimension of religiousness that was analysed, and therefore it is important to examine what particular relationship religious coping might have with suicidal ideation.

Kenneth Pargament (1997) has indicated that religious coping is typically used in stressful circumstances that highlight the limitations of the individual's resources. People who are religious are likely to have religion as a significant part of their general orienting system, and this will translate into religious coping methods which they will use together with nonreligious coping methods in a situation-specific way, depending on the individual, the nature of the event and the context.

The participants in this study showed high levels of religiosity and were therefore likely to use religious coping methods. Pargament (1997) stated

that those who feel disempowered in society – including women and the poor – are more likely to use more religious coping methods. Although the students in the sample were relatively privileged by virtue of being able to access tertiary education, there was nevertheless a large proportion of women in the sample, and the stresses and potential cultural pressures on them as students, referred to previously, may have caused some of them to feel disempowered.

When considering the religious coping methods used by the participants in this study, the majority was collaborative/deferring in their approach to religious coping. In Pargament et al.'s (1988) research, the collaborative and self-directing coping approaches were associated with measures of psychological and social competence (in particular, an internal locus of control and higher self-esteem), while the deferring style was characterized by an external locus of control, poorer problem-solving skills and lower self-esteem. The literature review highlighted issues of control and helplessness as being relevant to suicidal behaviour. Religion can offer a means of regaining a sense of vicarious or secondary control in the face of feelings of helplessness (Ellison, 1998; Hood et al., 1996; Sherrill & Larson, 1994, cited in Dull & Skokan, 1995), but it might also remove feelings of control when decisions are taken and events interpreted in terms of whether they would be acceptable to religious leaders or to God (Dull & Skokan, 1995). Feelings of helplessness, particularly arising out of the developmental challenges of adolescence (Hendin, 1991; Kraaij et al., 2003; Thompson et al., 2005), may make those individuals with a lowered sense of personal control and a greater sense of control by chance or by God (i.e. the deferring style) more vulnerable to suicidal ideation.

The associations between the self-directing style and measures of social and psychological competence, and between the deferring style and less optimal psychological functioning, reported by Pargament et al. (1988) in their study testing the three styles, were confirmed in some subsequent research. However, other subsequent research has indicated positive outcomes for the deferring style and poorer psychological outcomes for the self-directing style[1].

[1] See literature review for research references.

In general, the collaborative approach to religious coping appears to be associated with more optimal psychological functioning.

The positive relationship between religious salience and the collaborative/deferring style, and suicidal ideation and attempts, in this study, indicates that some of the more religious students in the sample had experienced recent suicidal ideation and previous suicide attempts. This would have been hard to predict, given the mixed findings referred to above and the fact that, in this study, the collaborative and deferring styles have been conflated into one approach to religious coping. Nevertheless, the positive association between suicidal behaviour and a preference for coping and solving problems collaboratively with God seems counterintuitive, considering that the collaborative style appears always to be associated with more optimal psychological functioning, and in the context of the extensive literature indicating that religiosity and suicidal behaviour are usually negatively related.

However, Pargament (1997) drew attention to the fact that not all religious coping is helpful. For some who use religion to help them to cope, their coping strategies are negative or unhelpful. They may be experiencing religious pain, turmoil, frustration, discontent with their congregations, or they may see recent stressful events as an indication of God punishing them (negative religious reframing). They may be using religion to deny their problems or avoid dealing actively with them (this is one of the potential outcomes of the deferring religious coping style). Negative religious coping is also associated with emotional distress, such as depression, poorer quality of life and various psychiatric symptoms (Pargament et al., 1998).

Religion does not always provide compelling solutions to problems, and for some people religious detachment occurs in the wake of crises (Pargament, 1997). Also, religion may be helpful in dealing with some stressors, such as non-family stressors, which are typically not perceived as being caused by the individual, but may make things worse in the presence of family crises, given religious values such as family cohesion and marital harmony (Strawbridge et al., 1998).

Although he has not specifically investigated suicidal behaviour and religious coping, Pargament (1997, p. 339) suggested that suicide might result from a "breaking point … the point where we can no longer keep ourselves together". This is caused by two factors, according to Pargament (1997). First there may occur for an individual a very severe attack on significance, echoing Frankl's (1967, p. 74) views on how suicidal behaviour may occur in the context of an existential vacuum, described as "the feeling of a total and ultimate meaninglessness of one's life". Religion may provide a sense of meaning and purpose (Chamberlain & Zika, 1992; Petersen & Roy, 1985, cited in McFadden, 1995). A sense of life meaning can also act as a buffer against the negative effects of emotion-oriented coping (involving avoidance) on suicidal ideation (Edwards & Holden, 2001). However, research suggests that for religiously-oriented constructions of meaning to have a positive effect on well-being, they need to be positive and hopeful as opposed to negative or self-blaming (Dull & Skokan, 1995).

The second potential vulnerability for a breaking point that might lead to suicide is, according to Pargament (1997), when an individual's orienting system is too weak to withstand the impact of current stressors, leaving the individual deeply affected emotionally and without the resources to cope. He argued that religion can add strength to the orienting system, and much of the literature reviewed indicates that religion does have such a buffering effect. However, religion may also weaken the orienting system – and two factors that were cited in this regard are an over-emphasis on personal sinfulness and guilt, and insecure (anxious/ambivalent or avoidant) religious attachment.

The focus on sinfulness in religions such as Christianity and Judaism may foster guilt (Koenig, 2001/2b) and shame (Koenig, 2000). Depression is a risk factor for suicidal behaviour and religiosity has been shown to increase the likelihood of depression in the presence of stressors involving family and work relationships. This is because religious individuals may feel more responsible for or guilty about family or other problems that they do not expect religious people to have, and may even feel stigmatized in some religious groups where such difficulties could be interpreted as an indication that their relationship with God is somehow lacking (Strawbridge et al., 1998). Guilt

and shame may also result in a rupture in a person's social relatedness within the religious context – if a believer withdraws from attending religious services because of guilt and shame, the absence of this potentially important source of social support may make him or her more vulnerable to suicidal behaviour (Savarimuthu, 2002). Also, while guilt does not necessarily lead to depression, depression causes guilt to be felt very acutely (Frankl, 1967), and this suggests that for religious people experiencing depression, guilt might be a prominent feature. Research shows that the self-directing religious coping style was negatively correlated with various guilt scales, and with scales measuring beliefs about being punished and forgiven and beliefs about sin and grace. By contrast the collaborative and deferring religious coping styles were positively associated with the measures of guilt and the beliefs in being punished as well as forgiven (Kaiser, 1991). This suggests that more religious people may be more prone to experiencing guilt, and to believing that evildoers (including themselves) will be punished (but also that they may be forgiven by God).

Insecure religious attachment is also a factor that weakens the individual's orienting system and increases vulnerability to major life stressors (Pargament, 1997). Images of God often resemble images of parental figures and include such contrasting concepts as "comforting", "loving", "protective" and "supportive", but also "avenging", "hard", "severe" and "wrathful". Thus religious attachment to the divine can be as anxious/ambivalent or avoidant as relationships with parental figures (Kirkpatrick, 1992, cited in Pargament, 1997) – as evidenced for example in feeling alienated from God or having an image of God as cold or distant (Exline et al., 2000).

Maynard et al. (2001) suggested that an individual's concept of God will play an important mediating role in which religious coping style is preferred, and this may provide the link between insecure religious attachment, negative religious attributions and less helpful religious coping. Both the collaborative and deferring religious coping styles have been significantly positively associated with both positive and negative concepts of God (as benevolent, guiding, caring and wrathful) (Schaefer & Gorsuch, 1991). Similarly in Maynard et al.'s (2001) research, while the deferring style was associated with concepts of God as stable and guiding, and the more religious

participants tended to see God as good, a measure of spiritual importance was positively associated with a belief that God is wrathful, and, contrary to expectations, religiosity was not significantly negatively correlated with a concept of God as condemning. Thus, individuals who believe in and depend to some extent on God could perceive Him as stable, caring and good, but might also on occasion see Him as angry or punitive.

Pargament (1997) concluded that secure and insecure attachment to God are probably associated with very different world orientations, and that those who identify with the former style are likely to use more helpful religious coping methods, while those with a more insecure attachment to God would be more likely to use the more harmful religious coping methods, with a consequent negative effect on psychological functioning. In support of this, the literature review cited several studies indicating that negative religious attributions (for example negative concepts of God and negative spiritual explanations of life events) are associated with less optimal psychological functioning and more harmful religious coping methods.

Thus suicidality may result if an individual's orienting system is weakened by guilt and shame related to perceived sinfulness – emotions that signify spiritual distress – and insecure religious attachment, which may result in an individual experiencing a mixture of positive and negative perceptions of God. This suggests that: "regardless of how religious individuals are or how much comfort they find in their religion" (Exline et al., 2000, p. 1482), they may also experience religious strain. This may lead to spiritual growth, but is also associated with greater depression and suicidality (Exline et al., 2000).

To illustrate how suicidal ideation in the religious may contain both negative religious attributions and emotions such as shame and guilt, feelings of alienation from God were strongly associated with depression in a nonclinical sample of 200 college students and a clinical sample of 54 patients seeking outpatient psychotherapy, and suicidality was associated with religious fear and guilt, particularly with belief in having committed a sin too big to be forgiven (Exline et al., 2000).

To summarise the implications of the abovementioned research, if God is perceived as distant or punitive, and sinfulness becomes the primary focus within the religion, guilt and shame will probably result which may overpower more positive religious beliefs and will probably result in religious strain and harmful religious coping. Thus, for a religious individual contemplating suicide, belief in God's goodness and willingness to forgive may be simultaneously present with hopelessness, including a fear that suicide is an unforgivable sin, and shame and guilt because of the suicidal ideation. This is an example of religious strain, which has been associated with both suicidality and depression (Exline et al., 2000).

Moreover, the literature suggests that maladaptive religious beliefs and negative religious coping may impact negatively on other areas of psychological functioning – specifically in the dimensions of depression, hopelessness and helplessness. These are all vulnerability factors for suicidal behaviour in young people, and therefore harmful religious coping may impact on suicidality via these mediating factors. For example, belief in having committed an unforgivable sin is consistent with the hopelessness that often characterizes suicidal thinking (Beck et al., 1985, D'Zurilla et al., 1998; Edwards & Holden, 2001; Weber et al., 1997).

In this study, the self-directing style was negatively associated with suicidal ideation, suggesting that it is a more adaptive perspective. Maynard et al.'s (2001) research indicated that less religious people may perceive God as distant and removed from everyday life, and are therefore more likely to be self-directing, or alternatively it may be they have not been faced with life challenges which they cannot manage by themselves, and thus develop a sense of self-reliance (Maynard et al., 2001). Phillips et al. (2004) demonstrated that the self-directing approach is associated with a concept of God as abandoning and with less salience of the concept of God, as opposed to a notion of a deistic and supportive but nonintervening God, thus also suggesting that this style is vulnerable to negative religious attributions.

The question remains as to why the self-directing religious coping style was negatively associated with suicidal ideation in this study, while the

collaborative and deferring styles, both of which have been associated with more optimal psychological functioning, should have been associated with suicidal behaviour. Pargament et al. (1988) noted that the self-directing style may be most useful in dealing with personally controllable situations. Since these situations are not likely to be experienced as very stressful, suicidality is also not very likely. However, when people are confronted by life challenges that exceed their capacity to cope, they may be more likely to turn to God, and thus the collaborative or deferring religious coping styles are more likely to be used by religious individuals facing very stressful situations (Pargament et al., 1988). This may provide the comfort and support that they need, but for some in such situations, "when faced with the limits of their control, they may (also) lack beliefs in another benevolent source of external control – the divine. Perhaps this sense of vulnerability leaves them more likely to experience emotional distress" (Phillips et al., 2004, p. 416). They may, as a result, become so hopeless and depressed that suicidal ideation results. Significantly, in this study, those who had previously attempted suicide tended to be more collaborative/deferring in their approach to religious coping, thus supporting the link between stress-induced suicidal behaviour and religiosity. Therefore a relationship does appear to exist between stressors that are beyond the individual's capacity to cope, collaborative or deferring religious coping, and emotional distress, including suicidal behaviour, but the way in which these variables might interact will differ according the individual, the situation and the context (Pargament, 1997).

It is interesting that neither of the two religious coping styles was associated significantly with positive ideation. This suggests that, whether the participants were self-directing or collaborative/deferring in their approach to religious coping, they did not have sufficient levels of positive ideation (feeling that life was worth living, that they were in control of most situations, hope about the future, excitement at life achievements, confidence in their ability to cope and their plans for the future) to counter negative or suicidal ideation. This suggests a perspective on life that is dominated by anxiety and negative cognitions, regardless of religiosity, and this is perhaps a reflection of the stressors faced by this student sample. However, this result could also be due to the fact that the lecture given to students prior to the data collection and the research instruments were focused on suicide. Those volunteers that

participated may have responded to or been influenced by the negative nature of the topic. Because negative and positive cognitions and affect are partially independent dimensions (MacLeod & Moore, 2000), positive ideation may have correlated with more "positively valenced variables such as life satisfaction or the helpfulness of drawing on religious resources" (Exline et al., 2000, p. 1492).

4.2 A cognitive-affective-behavioural model of suicidality: the role of religious attributions and harmful religious coping

When we examine religiosity and psychological distress, including suicidal behaviour, it is clear that we are dealing with complex, multifaceted concepts, and the relationship and direction of the associations between them are therefore also complex and often unpredictable. While most of the literature suggests that religion protects individuals from suicidal behaviour and its underlying risk factors, there is a body of research that suggests that religion can result in negative religious coping behaviours, cognitions and emotions that may increase vulnerability to suicidality. An attempt will now be made to integrate the risk factors for suicidality with the impact of religiosity on cognition, coping and emotions.

Firstly, religion can be considered a superordinate cognitive schema (Dull & Skokan, 1995; Pargament, 1997), which will strongly influence other cognitions, including religious beliefs that "may affect how someone interprets life events, and such interpretation may lead to either helpful coping behaviors or, alternatively, debilitating stress reactions" (Dull & Skokan, 1995, p. 50). Suicidality is often characterized by cognitive rigidity (Schoote & Clum, 1987, cited in D'Zurilla et al., 1998) and avoidance coping behaviours (Edwards & Holden, 2001; Josepho & Plutchik, 1994), which reiterates the relationship between cognitions and coping behaviours in suicidal behaviour. Negative religious attributions may result in negative emotions such as hopelessness, shame and guilt as well as harmful religious coping methods, which in turn have a negative effect on psychological functioning. What seems to be key, therefore, is how the individual thinks and feels about his or her religious beliefs and God, and what kinds of religious coping and behaviours emerge from this process. In other words: "It is not merely how

much but in what way one is religious that will determine the implications of religiousness for [psychological functioning]" (Hathaway & Pargament, 1990, p. 432).

Both suicidal ideation and religious coping have cognitive, affective and behavioural components and therefore David Rudd's (2000) cognitive-affective-behavioural model of suicidality may help to integrate some of these concepts. Termed the *suicidal mode*, predisposing vulnerabilities and potential stressors interact together to trigger four interactive systems (cognitive, affective, behavioural and motivational, and physiological) (see Figure 2.1 on page 45).

Rudd (2000) asserted that *cognition* is the central pathway for suicidality, which is "secondary to maladaptive meaning constructed and assigned regarding the self, the environmental context, and the future (i.e. the cognitive triad, along with related conditional assumptions/rules and compensatory strategies, referred to as the suicidal belief system)" (Rudd, 2000, p. 22). The suicidal belief system contains core beliefs, which include elements of helplessness, unlovability or poor distress tolerance, with an underlying future orientation of pervasive hopelessness, and these in turn render the suicidal person vulnerable to maladaptive beliefs regarding the self, others and the future. The two final elements of the suicidal belief (cognitive) system are rules or assumptions concerning conditions that would make the person more acceptable to others, and compensatory strategies such as perfectionism and subjugation in relationships (Rudd, 2000).

The *affective system* is characterized not only by depression but by dysphoria – mixed negative emotions, such as sadness, depression, anger, anxiety, guilt, hurt, embarrassment, humiliation and shame (Rudd, 2000). The *behavioural system* is dominated by an intent to die and preparatory behaviours, planning, rehearsal behaviours and suicide attempts, while the *physiological system* refers to the autonomic system, motor system and sensory system, which need to be activated for suicide to be attempted or completed (Rudd, 2000).

For the purposes of this study, which focuses primarily on suicidal ideation, the cognitive and affective systems of the model appear to be most relevant. When the cognitive system is considered, it has already been suggested that whether religion has a positive or negative impact on psychological functioning appears closely linked to the religious attributions people make, in other words how they perceive God and how they make meaning of the events of their lives. Religious attributions are in effect cognitions that are influenced by socio-cultural contexts and different religious traditions, and in particular may be the result of an insecure religious attachment. Thus negative beliefs (such as feeling alienated from God) and negative God concepts (seeing God as cold or distant) will impact on religious behaviour and on psychological functioning.

Negative attributions have been associated with suicidality. In a study of undergraduate students with suicidal symptoms, Joiner and Rudd (1995) found that in the presence of high interpersonal stress a negative attributional style for interpersonal events was associated with increases in suicidal ideation, which in turn was positively correlated with hopelessness.

In terms of Rudd's (2000) model of suicidality insecure religious attachment, arising out of infantile experiences of the parental relationship, may constitute a *predisposing vulnerability* to suicidal behaviour, which when triggered by *stressors* (either external or internal) may set in motion a *cognitive process* involving negative religious attributions and harmful religious coping strategies. With regard to the cognitive triad and core beliefs of unlovability, helplessness and poor distress tolerance, a religious suicidal individual may perceive others (including God) as rejecting, abandoning, punishing or judgmental. Pargament (1997) suggested that negative religious reframing focusing on the deity is typically a last resort, because people are usually reluctant to blame God, and when this does happen, negative outcomes are usually perceived as a deserved punishment, as opposed to random events or malicious actions by God. Thus the individual will in this context be likely to perceive himself or herself as sinful, imperfect, helpless, unlovable, defective and unacceptable to God. Beliefs about the future will be characterized by hopelessness, which pervades the suicidal belief system. Hopelessness will trigger negative religious cognitions, such as a belief that

God cannot help the individual, who therefore has no possibility of changing himself or herself, or the situation.

Conditional rules or assumptions will reflect a sense that, because the individual is not perfect, he or she will not be acceptable to God or to others, and compensatory strategies may include religiously-oriented overcompensation, perfectionism and subjugation in relationships. An example of overcompensation is religious pleading behaviours, and efforts to do more good deeds and to live a more religious life. These harmful coping strategies have been associated with a more negative mood and greater psychological distress (Pargament et al., 1994). Socially prescribed perfectionism – characterized by fear of failure or avoidance of punishment – can also emerge in religious contexts, and has been negatively associated with positive future thinking and positively associated with hopelessness in a study by Hunter and O'Connor (2003). In religious coping terms, subjugation in relationships may exhibit as a deferring religious coping style that is avoidant and passive. Religious avoidance and passivity have been tied to increases in measures of distress (Pargament et al., 1994), giving support to the criticism that religion leads its adherents to avoid rather than confront painful realities (Ellis, 1960; Freud, 1949, both cited in Pargament et al., 1994).

With regard to the *affective system* in Rudd's (2000) model, the elements of dysphoria that he referred to have also been suggested as potentially involved in the suicidal ideation of the students in this sample. In particular, depression and sadness have been shown to be associated with suicidality, including suicidal ideation and attempts in late adolescence and early adulthood, and in students (American Psychiatric Association, 2000; Galaif et al., 1998; Kisch et al., 2005; Mazza & Reynolds, 1998; Scocco et al., 2000; Thompson et al., 2005, Weber et al., 1997; Zhang & Jin, 1996). However, not all depressed young people contemplate or attempt suicide and those who exhibit suicidal behaviour are not all depressed (Greening & Stoppelbein, 2002; Kisch et al., 2005; Mazza & Reynolds, 1998). This supports the more multifaceted approach contained in Rudd's (2000) model. Dysphoria is characterized by a pattern of mixed negative emotions, and other emotions associated with the suicidal mode, apart from depression, include guilt and

shame. These have been shown to be a potential outcome of negative religious coping (Kaiser, 1991; Strawbridge et al., 1998), and have also been associated with suicidality (Exline et al., 2000).

Therefore, in response to stressors that trigger feelings of helplessness, unlovability and hopelessness, negative religious coping can have an important influence on both the cognitive and affective systems of the suicidal mode. Suicide-related behaviour may result (including suicidal ideation and attempts) when corresponding physiological arousal is experienced.

4.3 Secure religious attachment, helpful religious coping, religious comfort and optimal psychological functioning

It is important to emphasize that the ineffective or harmful religious coping approaches which have been proposed as being linked with suicidality are not the only ways in which religious individuals may respond to highly stressful situations. More secure religious attachment will probably be associated with more positive religious coping methods, and many studies document how benevolent religious reframing, religious forgiveness, involvement in religious rituals, spiritual support, and social support from clergy or fellow believers have helped individuals to think differently about their situations and cope better with them (Koenig, 2001/2a; Pargament et al., 1998, 2001). Positive religious coping has also been associated with more optimal psychological functioning (Larson & Larson, 2003; Pargament et al., 1998). Moreover, research suggests that religious individuals make more use of positive than negative religious coping methods (Pargament et al., 1998, 2001). Finally, since both religious coping and suicidal ideation were measured at the same point in time, any religious strain and potentially dysfunctional forms of religious coping exhibited by the participants in this study may have been the result of psychological distress rather than the precipitant of it (Exline et al., 2000; Pargament et al., 1994).

This study does not imply that religion offers more strain than comfort to believers, or that religious coping is more harmful than non-religious coping. It is worth reiterating that, despite the high levels of suicidal ideation and

behaviour in this very religious sample, there were also high levels of positive ideation – 68% of the respondents felt optimistic about the future most of the time or a good part of the time. In Exline et al.'s (2000) study, religious participants (particularly the females) reported higher levels of religious comfort than religious strain, while those who reported no religious affiliation (atheists and those who were unsure about their religious affiliation) reported greater religious strain, greater feelings of alienation from God and more rifts with religious people. They were therefore more at risk for suicidality and depression than the more religious participants in the sample. Research has also showed that religious coping efforts predicted the outcomes of stress above and beyond the effects of non-religious coping activities, and it was the concrete, situationally-tied appraisals, activities and goals of religious coping that had the more important implications for the well-being of those struggling with significant life events (Pargament et al., 1990, cited in Pargament & Olsen, 1992).

Finally, it is evident from the research cited previously, that the different religious coping styles are not necessarily associated uniformly with optimal psychological functioning or emotional distress. In this study, the self-directing coping style appears to be more adaptive, but in a recent study (Phillips et al., 2004), the self-directing approach was linked with a concept of God as abandoning, while the collaborative and self-deferring approaches were negatively associated with this concept of God. Feeling abandoned by God was associated with lower levels of self-esteem, higher reports of anxiety, and lower levels of life satisfaction and of spiritual, religious and existential well-being (Phillips et al., 2004). Therefore, to understand the relationships between the religious coping styles and suicidal behaviour it is important to tease out how individuals make meaning of their religious beliefs, and what the preferred approach means to them – in other words, their religious cognitions and the emotions that result from them. This requires further research.

5 Research Design Limitations in the Attempt to Predict Causality

In trying to understand the relationship between suicidal behaviour and religiosity, it is critical to highlight the cross-sectional nature of this study, which makes it is impossible to predict causality or the temporal order of the variables in question. Thus the assumption that religiosity might either protect against or facilitate suicidality cannot be ascertained with this type of research design. Instead, there may be another confounding or co-varying variable (not measured in this study), such as hopelessness or depression[1], resulting in an increase in both suicidal ideation and religiosity, and accounting therefore for the positive relationship between them (Exline et al., 2000).

Frankl (1997, p. 133) stated that "despair is suffering without meaning", and he would argue that in a state of despair one has freedom to choose – either to end the suffering by ending one's life or to find meaning in the suffering. Therefore, contemplating ending one's life and turning to God could both be solutions to an internal state of desperation. In support of this is Phillips's (1974, p. 307) claim that:

> A person who finds no meaning in life may kill himself; but, on the other hand, he may join a religious or political movement that provides him with meaning. An intensely lonely person may "choose" suicide as a solution to his loneliness or he may instead join a movement like the Samaritans that provides him with companionship … terminal cancer patients may commit suicide or join faith-healing cults.

This suggests that vulnerability to suicide may be associated with susceptibility to religion in some individuals, and highlights the role religion plays in providing a sense of life meaning.

In a study that illustrates Phillips's (1974) claim, religiosity was negatively related to suicidal ideation, depression and pro-suicide attitudes in a sample of American college students, but it was positively related to these variables in a Chinese sample (Zhang and Jin, 1996). The authors pointed out that the

[1] Other variables which could have an impact on both religiousness and suicidal ideation include anxiety, personality factors, socioeconomic status, family structure, history of sexual abuse and interpersonal functioning.

results do not illustrate a causal relationship between religiosity and suicidal ideation, and suggested that, when experiencing a sense of disappointment in the Communist Party and feeling unfavoured or depressed, some Chinese students are likely to resort to either religion or suicidal ideation or both.

Finally, it should be emphasised that the relationship between religious coping and suicidal behaviour cannot be directly inferred from this research. Religious coping is used by the religious in dealing with stressful situations, including those that precede suicide and the suicide decision itself, but this does not prove that the religious coping styles reported by the participants would be those used in or before actual suicide attempts. Future research would need to measure the specific religious coping strategies (in addition to the more dispositional religious coping style) adopted by the individual at the time of a suicide attempt.

6 Conclusion

Since suicidal ideation does not necessarily predict or lead to attempted or completed suicide (Linden et al., 2003; Scocco et al., 2000) and since most research indicates that measures of religiosity are negatively associated with completed suicides, particularly for women (Ellison et al., 1997; Neeleman & Lewis, 1999; Pescosolido & Georgianna, 1989), it cannot be assumed that, in this sample, being religious would not be a deterrent to suicidal behaviour. Although religion (Christianity in particular) has lost some of its prior influence with regard to suicide, fear of being condemned as a result of having committed an unforgivable sin may well cause a religious person to avoid suicide. This study suggests however that, despite potential fear of punishment and feelings of guilt and shame, suicidal ideation and behaviour in religious people persist. As Exline et al. (2000, p. 1491) pointed out:

> It seems counterintuitive that those who anticipate punishment from God would wish for death. Perhaps the suicidal thinking of such persons reflects a short-sighted desire to escape or annihilate the self … rather than a conscious decision about preparing to face judgment for sins.

Perhaps for some whose current life circumstances have become unbearable, hope for a life after death and a belief in a loving and gracious God who offers forgiveness even for this perhaps unforgivable sin may facilitate a suicide decision.

As is suggested at the end of paragraph 4 of this chapter, researchers are beginning to realize the complexity of the religious coping styles: "As we take a closer look at particular methods of religious coping, we are learning that they are more complex and multifaceted than initially imagined" (Phillips et al., 2004, p. 417). Similarly, Rudd (2000, p.20) pointed out that suicidality is a complex problem "that is inarguably the result of a complex web of factors, with precise interrelationships varying from individual to individual". This suggests that it is difficult to make generalizations about individuals' religious beliefs and coping behaviours, and about their affective states when they are suicidal, and that it may be impossible to unravel all of the unique interrelationships between them that vary from individual to individual.

Anecdotal evidence suggests however that many individuals, when contemplating suicide or a previous suicide attempt, also think about God and the spiritual consequences of suicide[1]. If they are religious they will in all probability use some religious coping methods in dealing with the crisis of meaning and enormous stress that inevitably precede suicidal behaviour. However, some religious coping is harmful and will weaken the individual's capacity to deal with these challenges. Therefore, a suicidal patient's religiousness, and in particular how he or she is using religion to think about or cope with current life stressors and the suicide decision itself, may be an important dimension to explore in suicide and parasuicide counselling (Exline et al., 2000).

[1] Suicide notes often refer to God and forgiveness, and in the researcher's personal experience of counselling parasuicides in community clinics, spiritual issues and struggles are often raised.

CHAPTER SIX : CONCLUSION

1 Concluding Summary

This study is located within the domains of suicidology and the study of coping, as well as the relationship between religion and psychological functioning, which falls within the field of the psychology of religion. It explored the prevalence of suicide attempts and suicidal ideation, as well as the relationship between suicidal ideation and religious salience, participation and coping, in a sample of young adults.

The results of this study indicate that the rate of suicidal behaviour among young adults is very high. For example, one in seven young people had previously attempted suicide, and almost one in three had recently thought about killing themselves. The prevalence of suicidal behaviour in South Africa is not well documented, and thus these epidemiological figures are useful.

While the literature suggests that religion is a meaningful factor to many who consider suicide, it is often neglected in suicide risk scales and in suicide counselling. Sociological research has shown that religion has a predominantly protective effect with regard to suicide and psychological research, while providing evidence for a similar relationship, has also shown that religious strain may contribute to suicidality.

The participants in this study reported high levels of religiosity, and more religious participants were more likely to adopt the collaborative/deferring approach to religious coping, while less religious participants were more likely to rely on themselves rather than on God in coping. Unexpectedly, given research evidence that religiosity is generally protective with regard to suicidal behaviour, in this study suicidal ideation was significantly positively associated with religious salience and with the collaborative/deferring religious coping style, and significantly negatively associated with the self-directing style.

It was suggested that suicide may result in the event of a severe attack on significance or meaning, and when an individual's orienting system is too weak to withstand the impact of current stressors. While religion can add

strength to the orienting system, factors such as insecure religious attachment and an over-emphasis on personal sinfulness and guilt increase vulnerability to life stressors. Insecure religious attachment results in believers holding more negative perceptions of God together with positive perceptions of Him, and is likely to result in the use of more harmful religious coping. This may result in religious strain, which has been associated with increased levels of depression and suicidality. A focus on sinfulness, guilt and shame may also result in spiritual distress, and may cause a religious individual to withdraw from his or her religious community, thus losing an important source of social support that is protective against suicidal behaviour. Maladaptive religious beliefs and behaviours may also have a negative impact on depression, hopelessness and helplessness, all vulnerability factors for suicidal behaviour in young people (although it is shown that in general religion has a positive impact on these factors).

A cognitive-affective-behavioural model of suicidality was used to provide some theoretical integration to these concepts. Cognition is emphasised as the central pathway for suicidality, and insecure religious attachment, when triggered by stressors, may set in motion a cognitive process involving negative religious attributions and emotions. The suicidal belief system of a religious person may include self-concepts of imperfection, helplessness and unlovability; other-concepts (including perceptions of God) as rejecting, abandoning or judgmental; hopeless beliefs about the future; harmful religious coping behaviours; and an excessively deferring religious coping style resulting in avoidance and passivity. The affective system may be marked by sadness as well as guilt and shame emerging from negative religious coping. Therefore in response to stressors that trigger feelings of helplessness, unlovability and hopelessness, religiosity that is negative can have a significantly harmful influence on the cognitive and affective systems of the suicidal mode. Suicidal behaviour may result when corresponding physiological arousal is experienced.

Another possible explanation for the results is that the self-directing religious coping style is most useful in dealing with personally controllable situations, and since these are not likely to be experienced as stressful, suicidality is also not very probable. By contrast, when individuals are faced by life challenges that exceed their capacity to cope, they may be more likely to turn to God and

use a collaborative/deferring religious coping style. Since these situations may be so severe as to render them vulnerable to hopelessness and depression, suicidal ideation may also result.

Finally it is possible that the sample composition and research design had an impact on the results. The majority of participants were female, and females tend to be more religious than males at all ages, and are also more prone to suicidal ideation and suicide attempts. Therefore the relatively high levels of suicidal behaviour, together with the high level of religiosity in the sample, may be the result of this gender skew. The cross-sectional design of the study makes it impossible to predict causality or the temporal order of the variables in question. Thus, it cannot be assumed that religiosity protects against or facilitates suicidality; instead a confounding or co-varying variable such as hopelessness or depression may have resulted in an increase in both suicidal ideation and religiosity, and would account therefore for the positive relationship between them.

Despite certain limitations pertaining to the sample and the research design, this study suggests that some young people, when facing stressful or distressing situations and contemplating suicide, may turn to religion as a resource to help them to cope. This has implications for mental health professionals who tend to ignore religion when treating suicidal patients. The implications of this study, its limitations and recommendations for future research will now be examined.

2 Implications

This study has added to the psychological research fields of suicidology, the study of coping and of the impact of religiosity on psychological functioning by providing an empirical basis for discussion regarding the prevalence of suicidal behaviour, and the relationship between religiosity and suicidal ideation, in South African youth.

It provides further evidence of the high prevalence of suicidal ideation and attempts among young people in South Africa. This is a problem that requires focused attention, and consideration should be given to providing additional

preventive resources on university campuses. Although the provision of counselling and other resources is costly, it can be argued that losing students to suicide is a serious problem in South Africa, which is in desperate need of the skills and knowledge of university graduates.

Given the critical prevalence of suicidal behaviour in adolescents and young adults, many researchers have sought to identify risk and protective factors for suicidality in this age group. Religion is one such factor, but while the relationship between religion and suicide has been researched at a group or societal level, there has not been a significant amount of research within psychology on the relationship between religiosity and suicidal behaviour. The psychological research that has been done has focused on indicators of religiosity such as attendance at religious services, and the salience of religion for the individual, but it is clear that being religious can result in a range of very different religious cognitions, emotions and behaviours, depending on the individual and the situation. Therefore it is necessary to go beyond indicators of religiosity to gain an understanding of what aspects of religiousness might impact on suicidal behaviour.

This study sought to explore such a dimension, in particular whether religious coping might play a role in protecting individuals from or facilitating suicidal behaviour. The findings of this study, which suggest that religiosity is associated with suicidal behaviour for some individuals, make an important contribution to the understanding of suicidal behaviour in adolescents and young adults. Both religiosity and suicidal behaviour are complex constructs, and the use of a cognitive-affective-behavioural model of suicidality was an attempt to provide a theoretical integration to the complexity of ways in which these two dimensions might be associated in individuals. To gain further understanding of the nature of this relationship, this research would need to be replicated and further refined with the aim of developing a more integrative theory of the relationship between suicidal behaviour and religiosity.

It is clear that this sample was very religious, and it can therefore be assumed that religious issues might be relevant for some suicidal students. Research evidence suggests that religion is a resource used for coping by many people (Pargament, 1997), particularly by the most disenfranchised in society (Pargament et al., 1998) and by those for whom religion is a larger part of

their orienting system, i.e. the more religious (Pargament et al., 2001). While not everyone involves religion in the coping process (Pargament et al., 2001), research shows that religious beliefs and practices are translated into specific forms of coping and problem-solving in response to stressors, including those stressors that precede suicidal behaviour. Some of the literature suggests that religion may well be an important buffer in the context of suicide.

However, religion is traditionally neglected in clinical psychology and psychiatry (Greening & Stoppelbein, 2002), and also in scales assessing suicidal risk (Kehoe & Gutheil, 1994). Although some mental health professionals refer patients to clergy or church-based counsellors, it is suggested that secular therapists or counsellors could also benefit from drawing upon their clients' religious coping and networking resources (Frankl, 1967; Pargament et al., 1998). In a study of depressed religious clients, pastoral counselling or cognitive behavioural therapy using religious rationales and religious imagery had better outcomes than standard cognitive behavioural therapy (Propst, Ostrom, Watkins, Dean & Mashburn, 1992, cited in Maton & Wells, 1995). Furthermore, drawing on Muslim patients' spiritual resources in therapeutic interventions has been demonstrated to lead to faster recovery from depressive and anxiety symptoms (Azhar, Varma & Dharap, 1994, cited in Larson & Larson, 2003).

Of course, as this study has suggested, religious coping and religiousness in general may in some cases be problematic or even harmful, and mental health professionals should be alert to what have been termed 'religious red flags' which may have a negative psychological impact (Pargament et al., 1998). These include spiritual discontent, appraising stressful events as punishment by God or as caused by Satan, and interpersonal religious discontent.

Ultimately, whether religion is helpful, harmful or irrelevant to individuals facing severe stressors depends on the individual and the situation, including how the situation is evaluated, the type of religious coping adopted, and how religious beliefs are used in the process. Pargament and Brant (1998, p. 126) pointed out that:

> It is all too easy [for researchers and mental health professionals] to overlook the religious dimension. However, for better or worse, religion is an integral part of

> the lives of many people in our society … If we ignore the religious side of life, then our theories and methods will remain incomplete.

Frankl (1967) also espoused this principle in the context of psychotherapy: "When a patient stands on the firm ground of religious belief, it is legitimate to draw upon his religious convictions, there can be no objection to making use of the therapeutic effect of these spiritual resources" (Frankl, 1967, p. 89). While Frankl's (1967) Logotherapy was not explicitly religious in its aims, he acknowledged that it "can open the door to religion, but it is the patient, not the doctor, who must decide whether he wants to pass through that door" (Frankl, 1967, p. 43). Thus the psychotherapist should not compel a suicidal patient to talk about the spiritual implications of the suicide decision, but should also not ignore religious issues if they are of importance to the patient.

In summary, this study has provided further evidence of the high prevalence of suicidal behaviour among young adults in South Africa. Furthermore, by identifying religion as a factor that might increase vulnerability to suicidality, this study has made an important contribution to the understanding of suicidal behaviour in this population. Religious people are likely to involve religion in coping with stressors, including those that precede suicidal behaviour, and mental health professionals need to be aware of religion as a resource for, and potential barrier to, overcoming suicidality in their patients. Although these important implications have emerged from this study, there are also a number of limitations in the study that need to be considered.

3 Limitations

This study focused on suicidal ideation, but it should be noted that this is not necessarily synonymous with suicidal behaviour. Therefore the results of this study may not necessarily contribute to the prediction and understanding of the relationship between religiousness and suicide attempts or completed suicides (D'Zurilla et al., 1998).

Previous studies that have used the Religious Problem-Solving scales have shown mixed outcomes for the self-directing and deferring approaches to religious coping. In general, however, the collaborative approach has been

associated with more optimal psychological functioning. In this study the collaborative and deferring approaches were conflated into one approach, and the association of this combined style with suicidal ideation may suggest that a dependence on God in coping is maladaptive. However, the literature makes it clear that religious coping is not a unidimensional construct, but is multi-faceted and can be both positive and negative. Unfortunately, by virtue of the necessity of combining the two more religious approaches in this study, this distinction between helpful and harmful religious coping was not made clear.

This study measured general indicators of religiosity, as well as a generalized religious orientation, namely religious coping, in an attempt to understand how this may relate to suicidal ideation. However, as Pargament and Olsen (1992, p. 512) pointed out: "If the goal is to predict the resolution of specific life events such as bereavement, divorce, or unemployment, then situation-specific measures of religiousness should be stronger predictors than generalized measures of religiousness". Thus a more microanalytic approach, such as the measurement of specific religious beliefs related to suicidal ideation and behaviour, for example that suicide is an unforgivable sin, or that there is life after death, could have shed greater light on the relationship between these complex variables. In addition, specific religious coping strategies utilized by suicidal individuals at the time of suicide attempts or completed suicides may be different to a more dispositional religious coping approach, and so, to understand the relationship between religious coping and suicidal behaviour in a more contextualized way, the temporal nature of assessment would need adjustment.

In this regard, since this study used a cross-sectional design, no conclusions can be drawn regarding the causality or temporal order of the variables of religiosity and suicidal ideation. For causation to be established, a longitudinal design would be required (Kraaij et al., 2003). Furthermore, as was pointed out in the previous chapter, it is possible that some confounding variable not measured in this study (e.g. depression, anxiety, personality factors, socioeconomic status, family structure, history of sexual abuse, interpersonal functioning etc.) impacted on both the religiousness and suicidal ideation of the participants.

Another limitation is that the study used self-report measures. These tend to be transient in nature (Davies, 1997, cited in O'Connor et al., 2000), and are subject to memory problems and social desirability bias. Self-report methodology also tends to measure "'soft variables', that is, paper-and-pencil tests designed to measure theoretical constructs" (Paloutzian, 1996, p. 251). This author went on to point out that studies that link religious commitment with measures of pathology often use such soft measures: "When people are asked to give answers to questionnaire statements about their feelings, religiousness tends to predict negative scores" (Paloutzian, 1996, p. 252). By contrast, in studies measuring "'hard variables' that is, real-life behaviors that evidence mental health status" (Paloutzian, 1996, p. 251), such as rate of completed suicides, religion tends to predict more positive outcomes. It is recommended in future studies that other forms of data collection should be used (such as interviews, expert judgments, experiments, and the measurement of suicide rates among university students) (Kraaij et al., 2003).

The nature of the sample of participants in this study may impact on the broader applicability of the findings of this study. Firstly, the participants were all students, and therefore the generalizability of the findings to other populations (such as suicidal psychiatric patients) remains to be investigated. However, Edwards and Holden (2001) pointed out that, since most suicide attempts or completed suicides are by people who are not psychiatric patients at the time of the event, studies using nonclinical samples are useful investigations into suicidal behaviour, and Vredenburg, Flett and Krames (1993, cited in Joiner & Rudd, 1995) have persuasively argued that there is little evidence for the notion of discontinuity between clinical and nonclinical depressed samples.

This sample was primarily female and, as was discussed previously, females tend to be more religious than males, and are also more prone to suicidal ideation. It has also been noted that female respondents to self-report questionnaires may be more willing than males to report more negative affective experiences (D'Zurilla et al., 1998). Thus the gender bias in the sample in this study may have skewed the overall results.

The majority of the participants in this study (71%) were Christian, and therefore the results may not be generalizable to other religions or to the irreligious. Also, it should be noted that 51% of the participants were Black. Culture and cultural belief strongly influence suicidal behaviour (Jahangir et al., 1998; Leenaars & Domino, 1993; Wassenaar et al., 1998), but this study did not attempt to explore the cultural differences that may influence both religiosity and suicidal behaviour.

Finally, the extent to which the sample is representative of young adults in general or even a population of undergraduate students at South African universities is questionable. The response rate was moderate, the final sample of 85 participants was not large, and, because of participant anonymity, any differences between participants and non-participants could not be evaluated. It is therefore possible that bias occurred (Kraaij et al., 2003), including volunteer bias. This study used a volunteer sample, and, as discussed in the methodology, volunteers differ from non-volunteers in a number of respects. Volunteers tend to be better educated than non-volunteers, higher in social status and IQ, have a greater need for social approval, are more sociable, arousal-seeking and unconventional, and less authoritarian. Significantly, in light of the gender bias in this sample, women are more likely to volunteer for research than men (Rosnow & Rosenthal, 1999).

Therefore, this study had a number of limitations relating to the variables that were measured, the cross-sectional design, the use of self-report measures and the nature of the sample. Future research in this area can take these limitations into account, and some recommendations will now be provided.

4 Future Research

The implications and limitations of this study suggest possible areas of focus for future research. For example, considering completed suicides as well as suicidal ideation and attempts would allow an evaluation of the differences between these types of suicidal behaviour. Research could be conducted in clinical samples of young people, and with other nonclinical subjects (Joiner & Rudd, 1995). Bigger samples would allow the researcher to assess

differences between religions, and even within a particular religion (for example, Protestants versus Catholics). Cultural and ethnic expressions of religiosity and attitudes towards suicide in different communities in South Africa could be evaluated, taking into account the differences that may exist and influence behaviour.

Depression, maladaptive cognitive style and personality may all influence religiousness (including the critical dimension of whether God is perceived as abandoning or loving) as well as suicidal behaviour and some of the latter's underlying factors, such as hopelessness, helplessness (or control), and coping. It would therefore be very useful to include assessments of depression, cognition and personality in future research using the research instruments used in this study.

A more 'fine-grained' analysis of religious coping by specific populations in particular situations, such as when contemplating suicide (Pargament et al., 1994), and qualitative research would yield a more nuanced understanding of the relationship between religiousness and suicidal behaviour. However, there is also scope for research that takes further the conceptualization of how religion may impact on the cognitions, affects and behaviours of the suicidal mode, with a view to developing a more integrative theory of the relationship between religiosity and suicidal behaviour.

Research designs that facilitate research on how religion may protect individuals from suicidal behaviour would also be useful. Understanding what factors protect young people from suicidality is valuable for the development of programmes of suicide prevention.

Finally, longitudinal designs would allow researchers to assess a possible causal or temporal relationship between these variables, and to track this relationship over time.

In conclusion, vulnerability to suicidal behaviour in young adults is a multifaceted problem, and religion, itself a multidimensional concept, is one of

many factors that may provide protection against, or add risk to, suicidal behaviour. Multivariate research is required – including culture, socio-economic status, family dynamics, and mental status – in order to control confounding variables.