Christians' Attachment to God and Mental Health

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Abstract

This study used a prospective design to examine the relationship between attachment to God and certain aspects of mental health on a Christian sample. 1265 participants responded to a survey which assessed their attachment to God, attachment to others, mental health variables, such as depression, positive and negative affect and well-being. Three to five moths later, the same survey was re-administered to 437 of the initial participants who agreed to take part a second time. Hypotheses predicted that higher levels of anxious and avoidant attachment to God would be associated with poorer levels of mental health, that the results would remain significant after controlling for attachment to others and initial mental health, and that higher levels of stress would moderate the relationship between attachment to God and mental health variables. Findings provided support for a strong association between attachment to God and mental health, and a less strong association between avoidant attachment to God and mental health. Attachment to God showed stability over time, and stress only moderated the relationship between anxious attachment to God and well-being. This result remained significant after controlling for attachment to others and time 1 mental health.

For my precious Nathaniel

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Foreword

To begin with, I believe it is important to explain that my views are coloured by my Christian beliefs. In this thesis I will attempt to give a balanced view of the literature on spirituality, religion and mental health, however, I shall not make any claims of objectivity, as I find such a goal unattainable. Being a former atheist, I have experience of seeing the world without the lens of faith and I believe that faith in God, or the lack there of, is a fundamental aspect of one's identity and influences the way one sees the world. Furthermore, the essence of one's relationship with God is that of affection and love and, in this sense, it is impossible to be objective about a person one loves deeply. So, my apologies to those who may find the views expressed here biased; I am certain they are, despite efforts taken to achieve neutrality.

This thesis will explore and discuss the relationship between Christians' attachment to God and their mental health. Chapter one provides a background and a rationale for the present study. Chapter two explores the relationship between religion and mental health. It begins with definitions of religion and spirituality, the proceeds to look at the link between psychology and religion, and examines the empirical evidence for the role of religion in mental health. After an overview of attachment theory, chapter three examines the implications of attachment for mental health. In chapter four, the concept of religion as an attachment process is discussed, introducing the empirical research which supports the validity of the attachment to God construct and the potential impact of attachment to God on mental health and well-being. Chapter five covers the

methodology of this study, chapter six presents the results and chapter seven discusses the findings.

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Chapter One: Introduction

Overview

This chapter will give a background of relevant research for this study, will explain the significance of this study and provide a rationale for the relevance of this study for research and clinical practice.

Religion and mental health overview

Whilst religion has been largely ignored or dismissed in mainstream psychology, there is currently an increasing interest in the role of religion and spirituality for mental health (Lambert, 2004). Therefore, there has been a need for theories that will integrate the spiritual domain in psychology, and will explain how it interrelates with all other elements that together form the whole person. Hundreds of studies have examined the link between religion and mental health or well-being (e.g. Galanter, 1989; Pollner, 1989); however that relationship is not well defined and the results are mixed in individual studies (Lambert, 2004), possibly due to the methodological limitations and multiple confounds when attempting to define religiousness and closeness to God.

A review of more than 850 studies found 80% positive associations between religiousness and mental health (Koenig, McCullough, & Larson, 2001). Religiosity in general has been found to predict better physical health, longevity, empathy, altruism, well-being, less anxiety, guilt, depression and suicidality, drug and alcohol abuse (Richards & Bergin, 2000). The pathway between religion and mental health is not

completely clear yet and research has pointed to the list of positive behaviours associated with religious individuals, such as healthier lifestyles, better social support and avoidance of risk behaviours. Religion may benefit mental health in many ways, including the beneficial effect of religious behaviours people use in order to cope with stressful events (religious coping) (Pargament, Tarakeshwar, Ellison, & Wulff, 2001), and its inherent ability to offer a way for individuals to make meaning of traumatic events. However, there is evidence that the benefits of religion on mental health are not simply the sum of these behaviours. For example, religion predicts mental health outcomes, even after controlling for other important predictors such as social support (Pargament, Ano, & Wachholtz, 2005). Despite the many findings for the benefits of religion, the impact of religion on mental health is not *always* positive. Research shows that spiritual distress and manipulative misuse of religion is linked with harmful mental health outcomes (Larson, Larson & Koenig, 2002). In contrast, a personally meaningful, devotional practice of religion is associated with improved mental health outcomes (Larson & Larson, 2003).

Research indicates that an important link between religion and mental health is the type of individuals' relationship with God. One's relationship with God has an impact on the measure and quality of religious coping used which, in turn, impacts on mental health (Pargament et al., 1988). Positive elements of individuals' relationship with God, such as spiritual support (the perceived support which comes from a relationship with God) have also been found to have a stress-buffering role at times of high life-stress (Maton, 1989).

Attachment theory and attachment to God

One framework that has the potential to explain the association between the aspect of religion which involves the individual's relationship with God and mental health is that of attachment theory. Attachment theory is a well-established and tested theory of human relationships that has recently been applied to humans' relationship with God. Attachment theory was conceptualised by Bowlby (1969) in order to explain the bond between infants and their primary caregivers and the impact of that bond on human development across the lifespan. The attachment relationship is said to exist in order to ensure the survival and safety of the child by maintaining proximity with their primary caregiver. Attachment has been studied extensively in relation to mental health. There is ample evidence for the relationship between infant and adult attachment and mental health (Dozier, Stovall, & Albus, 1999; Greenberg, 1999), with several studies validating this association in childhood (e.g Sroufe, Egeland, & Kreutzer, 1990), and in adulthood (Bifulco, Moran, Ball, & Bernazzani, 2002; Carlson & Sroufe, 1995; Difilippo & Overholser, 2002; Hazan & Shaver, 1987; Mikulincer, Shaver, & Pereg, 2003; Murphy & Bates, 1997).

The framework of attachment theory has recently been applied to the relationship between humans and the supernatural deities in which they believe. (Kirkpatrick, 1999b) argues that across religions, many individuals form relationships with their God that meet the criteria that Bowlby has specified in order to classify a relationship as an attachment relationship. Rowatt and Kirkpatrick (2002) identified three styles of attachment to God: (a) secure, (b) avoidant, and (c) anxious/ambivalent, which

Rationale and significance of the study

There is evidence that attachment in general has an impact on mental health. There is also evidence, from the importance of religion for mental health and research on attachment to God, that attachment to God is associated with mental health. However, there is little evidence regarding the direction of that relationship as most studies that have looked at this relationship have been correlational. Furthermore, most studies to date have been conducted with samples from the United States, which limits the generalisability of their findings to people from other countries and cultures. This study uses a prospective design, which may bring this line of research one step closer to making causal inferences about attachment to God and mental health.

Given the relevance of attachment and religion for mental health, the emerging evidence for a relationship between attachment to God and mental health, and the scarcity of prospective-design studies in this area, it is important to explore further the relationship between the attachment to God and mental health. The fact that attachment in general is activated during stressful events, and some preliminary evidence that this may also be the case in the human-God attachment, warrants investigation into the changes that may occur in the relationship between attachment to God and mental health as a result of stressful events.

The focus of the present study is to explore the relationship between Christians' attachment to God and mental health, and the impact of stressful events on this relationship, on which there is very little research to date. There are three reasons for the interest in the way individuals of the Christian religion experience attachment with God;

firstly because the subject matter of Christianity is familiar to the researchers, secondly, because of the convenience of employing a large sample through the Christian churches the researchers have access to, and thirdly, because greater homogeneity in the sample is likely to produce more statistically significant results. It is my belief that it is of equal importance to explore the same research questions in different religious contexts, which is an important avenue for future research.

This study will be of benefit to Christian therapists, pastors and lay people working in pastoral care. A deeper knowledge of how attachment styles affect mental health has the potential to extend the general field of research on attachment and psychotherapy. Given the growing interest in how religion can be understood and incorporated into therapy there is a need for the development of interventions designed to address the spiritual dimension, in addition to the psychological, emotional, and social domains. Specifically, if anxious and avoidant attachments to God render people more vulnerable to the effects of stress on their mental health, then therapeutic tasks can be designed to target improvement in the style of attachment, which may in turn result in improved well-being and mental health.

Summary

This chapter has summarised the background and rationale for the present study. A summary of research on the association between religion and mental health was followed by a brief review of the role of attachment in this relationship. Finally, the significance of this study for research and clinical practice is discussed.

Chapter Two: Religion and mental health

Overview

In the last decade, there has been an increasing interest in the relationship between religion and spirituality, and mental health. This chapter will examine that relationship by tracing its historical path, looking at the empirical evidence, and exploring the possible ways by which the relationship may be explained.

Religious belief

Despite the decline in church attendance in Western countries, religious belief remains strong (Ward, 2004). The vast majority of people worldwide believe in God or a Higher Power and only a very small percentage has no belief in God (Martin, 2005}. Approximately 95 % of Americans express a belief in God (Gallup & Lindsay, 1999). In New Zealand, the data from the International Social Survey Programme (ISSP) conducted by Massey University, showed 80% of New Zealanders expressed at least some belief in God or a Higher Power (Gendall, Assendelft, Burra, & Hosie, 1999). Of the remaining 20 per cent, 12% agreed with the statement "I don't know whether there is a God and I don't believe there is any way to find out", and 8% stated they do not believe in God (Gendall et al., 1999). In the same survey, 60% of New Zealanders report praying "at least once a year". In the 2001 census, 61% of people identified as Christian (New Zealand Statistics, 2001). It seems that despite a common perception of New Zealand as a secular country, the majority of people have at least some kind of faith or

belief in the spiritual dimension. It is therefore imperative that more light be shed on the links between religion and mental health, in order to drive theory and assist in the design of policies about how religion and spirituality is addressed in psychotherapy.

Defining religion and spirituality

It is a difficult, if not impossible task to differentiate religion from spirituality. (Spilka, Hood, Hunsberger, & Gorsuch, 2003) state that religion involves more institutional elements, whereas spirituality is more personal. Gorsuch (2002) defines spirituality as "the quest for understanding ourselves in relationship to our view of ultimate reality, and to live in accordance with that understanding" (p. 8). Some authors claim it is possible to have spirituality free of religion, and it is also possible to have religion free of spirituality (Tillich, 1957). Others assert that the ultimate spirituality *is* religion (Donahue, 1998, in: Spilka et al., 2003). The term "spirituality" has come to represent an often desirable, or fashionable, state in our post-modern society, whereas religiosity is outdated. It seems that in today's consumerist society where products are constantly re-packaged to appeal, religion has had to change its profile in order to suit popular demand. In this thesis, religion is taken as a broad term to encompass all aspects of a person's personal and institutional practices and beliefs which connect the individual with God.

Religion and Psychology

The relationship between religion and psychology has changed several times from the emergence of psychology until today. The original subject-matter of psychology, the psyche (soul), a term taken from the Greek and Hebrew Scriptures, represented all

aspects of the person, including the physical, mental, emotional and spiritual domains. In some non-Western societies this is still the case. For example, Sacco (1996) describes how African languages do not have different words to distinguish "spirituality", "religion" or "theology". For them, the spectrum of religion and spirituality are so much a part of life, they do not need an exact definition. In New Zealand, a similar worldview exists within the Maori culture and has increasingly been made known and validated with the emergence of Maori theoretical models in psychology (Durie, 2001). In contrast, in the 20th century Western world the influence of psychological and sociological theories initiated a separation of the mind and spirit, leading to the field of psychology withdrawing its interest from the soul, and focusing on behavioural, cognitive and neurological areas (Koenig, 1997).

Psychology and religion have hardly enjoyed an amicable relationship. Contrary to some early founders of psychology, such as William James and James Watson (who embraced religion in their theory and practice) a trend against religion started in the 1960s. This trend began with Sigmund Freud, who viewed religion as harmful for mental health (Koenig, 1997). Freud himself promoted the view that religion was an unnecessary complication for mental health and something people are better to do without. Freud described religion as the "universal obsessional neurosis of humanity" (Freud, 1961, pp. 43-44) . Along the same lines, Albert Ellis (1980) asserted that dogmatic religiosity is strongly related with emotional disturbance. Other mental health professionals and physicians have expressed the view that the impact of religion on mental health either does not exist, or is negative; for more detail see (Koenig, 1997). However, research

points to a positive relationship between religion and mental health, which will now be examined in more detail.

Religion and mental health

Litterally hundreds of studies have examined the relationship between religiosity and health outcomes; many of these studies have focused on the relationship of religion with physical health (e.g. George, Ellison, & Larson, 2002; Powell, Shahabi, & Thoresen, 2003; Rippentrop, 2005; Seeman, Dubin, & Seeman, 2003; Thoresen, Oman, & Harris, 2005). Hundreds more studies have examined the impact of religion on mental health and well-being, which is of particular interest in this study. For reviews see (Gartner, 1996; Koening et al., 2001). However, that relationship is not well defined and the results are mixed (Lambert, 2004), possibly due to the methodological limitations and multiple confounds when attempting to define religiousness and closeness to God.

Religiosity in general has been found to predict better physical health, longevity, empathy, altruism, well-being, less anxiety, guilt, depression, suicidality, drug and alcohol abuse (Richards & Bergin, 2000). A review of more than 850 studies found 80% positive associations between religiousness and mental health (Koenig et al., 2001). In the majority of studies, religion predicted increased well-being, hope, optimism, purpose and meaning, lower anxiety and depression and lower abuse and suicide rates.

In his 1996 review, Gartner (1996) found positive associations between religion and longevity, marital satisfaction and well-being, and negative associations with divorce,

substance use, depression, delinquency, and suicidality. McCullough, Hoyt, Larson, Koenig, and Thoresen (2000), conducted a meta-analysis of 42 studies, representing 125,826 participants, looking at the association between religious involvement and mortality. After controlling for possible moderators, it was found that people who had a higher level of religious involvement had a 29% lower mortality than those who were less religiously involved. Levin and Taylor (1998) conducted a longitudinal study with 2,107 African American participants, assessing the effects of religious involvement on well-being. Strong effects of religious involvement on well-being were found, which remained significant after controlling for sociodemographic variables and health.

There are several explanations offered as to why religion may promote mental health. A unique characteristic of religion is its ability to help individuals make meaning of their suffering and other stressful situations. Frankl (1992) asserted that it is meaninglessness itself that has become the major neurosis of this modern world. If making meaning is of such importance to mental health, then religion may promote better mental health by helping individuals to make meaning of the stressful or traumatic situations they experience. Other possible ways through which religion can promote health include increasing people's levels of social support, reducing risk-behaviours such as smoking and drug abuse and having an internal locus of control (Koenig et al., 2001). Similarly, research indicates that religious people tend to engage in health-promoting behaviours compared to their non-religious counterparts. Recent research by Hill, Burdette, Ellison, and Musick (2006), using a sample of 1504 Texas adults, found that regular weekly church attendance was associated with a range of health-promoting behaviours, including preventive care use, seatbelt use, exercise and better sleep. Another

explanation for the health benefits of religion is increased optimism and/or hope for change, or a combination of some or all of the above factors (Levin & Chatters, 1998). However, one should be careful about reducing religion to the set of variables by which its impact on mental health is inferred. For example, religion predicts mental health outcomes, even after controlling for other important predictors such as social support (Pargament et al., 2005).

Not all religious practice has the same effects on mental health and not all religions share similar religious practices. Even within the Christian religion, the focus of this study, it is not prudent to assume that all Christians practice religion in the same way. Christian beliefs vary greatly and the practice of religion varies accordingly. Research shows that the way people view God can predict different levels of attachment and mental health. For example, Eurelings-Bontekoe, Van Steeg, and Verschuur (2005) conducted a study among a sample of 208 Christians from Orthodox and Pentecostal denominations. He found that the Orthodox reformed church participants held a more punitive and negative image of God than participants from the Pentecostal church. Participants who held a more negative image of God tended to have higher levels of insecure attachment and psychological distress.

Research shows that the *type* of religious practice may mediate the relationship between religion and mental health. In particular, religious practices, which are less personal and more institutional, termed as 'extrinsic religion' Kirkpatrick & Hood (1990) are negatively correlated with mental health (Hackney & Sanders, 2003). Gartner (1996) found some types of psychopathology linked with religion, such as authoritarianism,

suggestibility and dependence. Josephson (1993) studied the origins of psychopathology in highly religious Christian families and found that extremely rigid parenting practices and cold affect characterised families whose children had mental disorders. Furthermore, spiritual distress and manipulative misuse of religion have been found to be linked with harmful mental health outcomes (Larson, Larson & Koenig, 2002).

Positive aspects of religion, termed spiritual support, have also been found to have a stress-buffering role at times of high life-stress (Maton, 1989) An active and 'intrinsic religion', a personally meaningful devotional practice of religion, is associated with improved mental health outcomes (Larson & Larson, 2003). Intrinsic religiosity has been found to predict a quicker remission for depressed elderly patients (Braam, Beekman, Deeg, Smit, & van Tilburg, 1997; Koenig, George, & Peterson, 1998).

Using religion to cope with stress

There are a number of religious methods people use to cope with stressful life events. These include prayer, fasting, worship, going to church, reading the bible and/or meditation and are often termed as 'religious coping' (Pargament, 1997). In a meta-analysis of 49 studies, it was found that religious coping can be positive or negative with corresponding effects on mental health (Ano & Vasconcelles, 2005). In a study of more than 400 mental health patients in Los Angeles County (Tepper, Rogers, Coleman, & Malony, 2001), it was found that 80% of patients used religious beliefs and activities to cope with their situation and 30% counted their religious beliefs and activities as their most important coping resource. In the same study, the longer individuals had been

practicing religious coping strategies, the lower their overall symptomatology. Similarly, a study of 88 Canadian psychiatric inpatients in 2001 found that certain religious factors are more predictive of better life-satisfaction, reduced depressive symptoms, length of hospital stay and alcohol abuse (Baetz, Larson, Marcoux, Bowen, & Griffin, 2002). The factors which stood out as highly relevant to mental health were frequency of prayer, religious coping, and attendance of religious services. Lindgren and Coursey (1995) surveyed 30 psychiatric patients who reported that their spirituality improved their illness by providing hope and comfort.

Pargament (1997) estimated that mental health outcomes are generally improved for 68 per cent of mental health patients who use religion for coping. In his summary of 79 studies, Pargament, (1997) concluded that the higher the level of religiosity of the individual and the higher the stress level of the situation, the more one is likely to use religion in order to cope with stressful events. Similarly, the benefits of religious coping are increased in more stressful situations (Pargament, Koenig, Tarakeshwar, & Hahn, 2004). Research indicates that the type of individuals' relationship with God has an impact on the measure and quality of religious coping used, and, in turn, on mental health (Pargament et al., 1988).

It seems there are numerous ways by which religion impacts on mental health. Whilst it is a difficult task to disentangle religion and mental health, as some would argue they are inseparable parts of the same entity (Malony, 1998), research suggests there is something unique and distinct about the way religion influences mental health. In this thesis, we look at one possible avenue through which a particular aspect of religion, that

is, attachment to God, may influence mental health, especially in the light of stressful events.

Summary

A resurgence of interest in religion within psychology has generated research which points to a strong relationship between religion and mental health. Positive and negative aspects of religion and individuals' relationship with God, and their ability to predict positive and negative mental health outcomes have been discussed, with positive aspects of religion associated with a secure relationship with God and improved mental health outcomes. It seems that religion can have a positive or a negative association with mental health, depending on the type of coping strategies used, the type of religiousness (intrinsic or extrinsic), and the individual's relationship with God, but overall, research is indicating a positive impact of religion on mental health (Koenig et al., 2001). Empirical research supports the validity of religion as an entity which can predict mental health over and above other mediating variables.

Chapter Three: Attachment and mental health

Overview

This chapter gives a background of attachment theory and its evolution to include adult relationships, and examines research on the relationship between attachment and mental health.

Attachment theory—the background

According to Cicirelli (1991), a common understanding of attachment is that of a bond between the primary caregiver (often referred to as 'mother' for ease of reading) and the infant. The term attachment has been used interchangeably with the words 'love', 'relationship', 'bond'or 'affectional bond'. Drawing on different disciplines, such as ethology, developmental psychology and psychoanalysis, Bowlby (1979) defined attachment as an affectional bond, which is distinguished from other close relationships by the infant's efforts to maintain proximity to the mother, its distress and protest (such as crying and clinging) when separated from her, and the joy when reunited with her. This set of attachment behaviours is activated when the mother is out of a certain protective range, and intensified when the infant is under stress. If separation is prolonged, then the infant is likely to detach from the mother. Attachment has a biological basis and an evolutionary role, according to Bowlby, which is to maintain the infant's safety and survival and to maintain the family's gene pool.

Bowlby's theory was empirically tested by Mary Ainsworth (Ainsworth, Blehar, Waters, & Wall, 1978), who conducted the famous 'strange situation' laboratory experiment. In this experiment, Ainsworth observed infants' interactions with their mothers during a stressful situation (i.e. the mother leaving the room), and upon reunion. Based on these observations, Ainsworth classified the attachment styles of the infants as *secure*, or two types of insecure attachments—*avoidant* and *anxious-ambivalent*. Securely attached infants had reliably responsive mothers and were easily pacified upon their mother's return, whereas insecure infants had either unreliable or unresponsive mothers and reacted with avoidance of or increased clinginess to their mother respectively.

During early development, the infant develops what Bowlby terms an 'Internal Working Model' (Bowlby, 1979); in other words, a mental representation of the mother's responses to the child's attachment behaviours in stressful situations. If the mother is consistently responsive, the infant is theorised to develop a corresponding mental representation of the mother as available to meet his/her needs, which fosters a secure attachment. Conversely, if the mother is consistently unavailable, the infant may develop a matching mental representation of the mother, which fosters an avoidant attachment style. In the case of a mother who is unpredictable, or unreliably responsive, the infant may develop an anxious attachment.

Attachment is not unchangeable but can take a different form if the nature of the parent-child relationship changes (e.g. in the event of divorce or mental illness in the family). The nature of attachment also changes as the infant grows older and learns to communicate in different ways. Bowlby (1979) argued that, despite its evolving nature,

attachment itself is persistent and follows the individual from the beginning to the end of their lives. Research shows that most adult children continue to maintain an affective bond with their parents, seek contact with them, and experience grief at their loss (Cicirelli, 1983). There is evidence for continuity of the nature of attachment into adulthood (i.e. secure parent attachment in infancy continues to secure parent attachment in adulthood) and evidence for discontinuity (Thompson & Lamb, 1986).

The construct of attachment as an enduring affectional bond was extended by Hazan and Shaver (1987) who conceptualised romantic love relationships as attachment bonds. Hazan and Shaver (1987) postulated that romantic love is an attachment process with a similar evolutionary purpose to infant attachment; that is, to maintain the safety of the offspring of two romantic partners by drawing the partners to stay together and protect their child. The authors theorised that internal working models of self and others, formed in infant attachment relationships, organise patterns of relating throughout life and correspond with adult patterns of relating. Hazan and Shaver classified adult patterns of relating into three categories, corresponding to Ainsworth's (1978) categories of infant attachment: *secure*, *avoidant*, and *anxious ambivalent*.

Adult romantic attachment shares many of the characteristics of infant attachment, including its activation at times of stress, the proximity-seeking and protest behaviours at separation, and an experience of the romantic partner as a secure base and a haven of safety (Hazan & Shaver, 1987). The distribution of adult attachment styles has been found to be very similar to that of infant attachment styles, with 55% of individuals classified as secure, 25 % as avoidant and 20% as anxious (Shaver & Clark, 1994).

However, adult attachment is different to infant attachment in that it does not have a steady nature, but as West and Sheldon-Keller (1994) put it, it "ebbs and flows within a much broader range of variation". Put more prosaically, romantic love is like a searing flame of emotion that may either "burn out" or later give rise to "a more enduring bond" (p...).

There have now been a number of studies that have examined the link between attachment and mental health (Berant, Mikulincer, & Florian, 2001; Gittleman, Klein, Smider, & Essex, 1998), susceptibility to stress (West, Livesley, Reiffer, & Sheldon, 1986), well-being (Love & Murdock, 2004) and psychopathology in childhood (Greenberg, 1999) and adulthood (Dozier et al., 1999). The inextricable role of attachment in the development of personality begins in childhood (Bowlby, 1969; Erikson, 1963). Children up to the age of two with secure attachment styles have been found to be more sociable, to have higher compliance with their parents and better emotion regulation (Ainsworth et al., 1978). Conversely, children in the same age-range with an insecure attachment do worse in their relationships with their peers, their ability to control their anger and other emotions and actions (Sroufe et al., 1990). From middle childhood to adolescence, similar patterns can be observed, and a review of the literature shows insecure attachments to be related to aggression and conduct problems, delinquency, adult criminality and substance use (Greenberg, 1999). In extreme cases, the nature of attachment itself is classified as an attachment disorder, as specified in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR).

Adulthood attachment has been studied in its relation to affect regulation (Mikulincer et al., 2003), depression (Bifulco et al., 2002; Difilippo & Overholser, 2002; Murphy & Bates, 1997; Hazan & Shaver, 1987) self-confidence, coping and distress patterns (Birnbaum, Orr, Mikulincer, & Florian, 1997; Lopez & Gormley, 2002), self-esteem (Collins & Read, 1990) and social anxiety (Eng, Heimberg, Hart, Schneier, & Liebowitz, 2001). In these studies, insecure attachment styles are associated with negative mental health and personality variables, whereas the opposite is true for secure attachments. Secure attachment is generally considered to be an important protective factor against psychopathology across the life-span (Carlson & Sroufe, 1995).

One view on the connection between attachment and mental health is that the attachment behavioural system is designed to maintain the infant's physical and emotional safety and this is why it is activated at times of stress. The fact that different infants display different attachment behaviours depends on the style of attachment and the internal working models they have formed, which are activated during stressful times. Hence, in times of stress, securely attached infants are likely to seek comfort in the presence of their primary caregiver and receive the comfort easily, whereas anxiously attached infants are more likely to take longer to soothe and avoidant infants are prone to withdraw.

Another possible explanation for the link between insecure attachment styles and psychological distress relates to a failure of an important role of attachment; that is, to establish a healthy sense of self-esteem in the individual (Roberts, Gotlib, & Kassel, 1996). From a cognitive perspective, when negative perceptions of self and others are

triggered, psychological distress may occur. Bretherton (1987) suggests that insecure attachments may give birth to negative internal working models of self and others, which in turn promote cognitions of the self as unworthy and others as unpredictable. As the individual grows and forms new relationships, the internal working models formed in infancy influence and colour one's cognitions, expectations of others and interactions with them. When those internal working models are negative, they may foster dysfunctional patterns of relating to others.

Summary

Even though research has found numerous links between attachment and mental health, it would be premature to assume that this is a linear, causal relationship. What is clear is that attachment is an extremely important factor in a person's development, and continuously interacts with other factors and processes to produce psychological outcomes (Sroufe, 2005). It follows then, given the importance of attachment for mental health, and given the large proportion of religious individuals in the world, it is essential to understand the theory that a relationship with God can be an attachment relationship, which may have a similar impact on mental health as infant and adult attachment. This the focus of the following chapter.

Chapter Four: Attachment to God

Overview

This chapter discusses the parallel between infant, adult and God attachment, looking at the theoretical and empirical evidence supporting the validity of the construct. The characteristics and styles of the three types of attachment to God are compared and the theoretical models which explain the attachment to God construct are presented. Finally, research on how attachment to God impacts on mental health is discussed.

Attachment and religion

Attachment theory has put a clearer lens and highlighted the vitality of relationships for human development and well-being, and in recent years has been highly influential in social, personality, developmental and clinical psychology. There is now evidence that a metaphysical deity can indeed be an attachment figure; believers of many monotheistic religions experience a relationship with God which shares similar characteristics as infant and adult attachment (Kirkpatrick, 1999a). Therefore, Kirkpatrick (1992) argues, if attachment theory can be extended to people's relationship with God, it has the potential to shed a much needed stream of light on a vast and unexplored aspect of the human psyche. As has been discussed in the previous chapter, the central tenet of attachment theory, as conceptualised by Bowlby (1969) is the need of the infant for an available and responsive attachment figure in order to maintain emotional and physical safety. Kirkpatrick (1992) has drawn a parallel between the attachment of infants to their primary caregivers, and the attachment of humans to supernatural deities, through the

process of religion. Because this thesis is focussing on the experience of attachment of Christian individuals, the word "God" is used throughout this thesis, acknowledging that metaphysical deities can be perceived differently in various contexts.

From a psychological perspective, theorising on the religious experience has been scant and most research comes from the psychoanalytic school. Freud theorised that God is created by humans out of a need for security and comfort at times of fear, in order to compensate for the need of the omnipresent father of their childhood (Freud, 1961). Freud's view shares commonalities with other theories which view religion as a human invention, borne out of fear. Kirkpatrick (1992) highlights the negative evaluation of religion, when viewed under this light, and stresses the need for a theory that is less evaluative and more capable of cultivating a fertile ground on which psychological theorising about God and religion can grow. Attachment theory has the potential to do this.

From a theological perspective, the Bible teaches that people are created in the image of God as relational beings, in need of closeness with God and other humans (Eckert & Kimball, 2003). Jesus Christ, the image of God in the Christian faith, asserts that the greatest commandments of God are to love Him and to love others as oneself (Matthew, 22: 37-39). Therefore, it makes perfect sense from a theological or religious perspective to understand the human-God relationship as a form of attachment.

One question that may first come to mind is, "what kind of attachment is the attachment to God?" Does it more closely resemble the infant or adult romantic attachment? The

answer is not clear-cut. The Judeo-Christian God of the Bible is sometimes described as a loving and reliable Father, at other times as a punishing Father, and sometimes as a lover. In either instance, God and humans are always described as having a relationship of love. Out of love, the Father is said to comfort, heal and discipline; out of love, God expresses his jealousy when his "bride", Israel, chases after other gods. Similarly, people's experiences of conversion are often compared to the feeling of falling in love, but they most commonly refer to God as a Father. It seems there can be both a parental and a romantic bond between God and humans. For the purpose of this study, what is extremely relevant is that, either way, there is a love relationship between God and humans which Kirkpatrick argues is not merely a metaphor, but "a genuine attachment process" (Kirkpatrick, 1999a) which can be meaningfully understood under the lens of attachment theory.

Kirkpatrick (1999b) argues that across religions, many individuals form relationships with their God that meet all the criteria Bowlby has specified for a relationship to be classified as an attachment relationship. That is, religious people show a tendency to view their God as a haven of safety and a secure base from where exploration is initiated, they make efforts to maintain proximity, and they experience distress as a result of separation (or perceived loss) of their relationship with God. Rowatt and Kirkpatrick (2002) identified three styles of attachment to God: (a) secure, (b) avoidant, and (c) anxious/ambivalent. In the secure attachment style, individuals experience a warm and loving relationship with God, where God serves as a secure base and a haven of safety. Individuals who are anxiously attached to God are insecure about God's presence and those with an avoidant style are more self-reliant and experience God as distant. At times

of stress, attachment behaviours described by Bowlby (1969), such as proximity seeking, are activated. Research shows that attachment to God is a construct distinct from infant attachment and religious practices or beliefs (Rowatt & Kirkpatrick, 2002; Sim & Loh, 2003). The construct of attachment to God has also received empirical support and several scales have been developed for its measurement (Beck & McDonald, 2004; Rowatt & Kirkpatrick, 2002; Sim & Loh, 2003). Let us take a closer look at the application of these attachment behaviours to the Attachment to God model.

Proximity seeking and response to separation and loss

Bowlby (1969) argued that the biological purpose of attachment behaviours is to protect the child by maintaining proximity between the infant and its mother. Kirkpatrick (1992) argues that many religious behaviours humans engage in, such as prayer and glossolalia (speaking in tongues) are attachment behaviours, designed to increase closeness of humans with their God, whom they perceive as an attachment figure. Whilst there are large differences in the way religion is practised across different faith systems, denominations and individuals, what seems to be common is that the expression of faith of the highly devout involves a reciprocal relationship with a God who is experienced and known at a deep personal level. Brohen (1957) described these individuals as walking and talking with God (p. 177).

What is more, the emotions commonly experienced by religious individuals as a result of closeness with or separation from God resemble those of an infant's relationship with its mother. In the presence of the attachment figure there is peace and contentment; where

there is separation, there is anxiety and fear. Christian writers have often described the longing for the presence of God, the peace His presence brings, and the anxiety of separation from God. The psalmist describes the longing, "as the deer pants for streams of water, so my soul pants for you, O God" (Psalm 42:1-3), and "O God, you are my God, earnestly I seek you; my soul thirsts for you, my body longs for you in a land where there is no water" Psalm (63:1-3, NIV). He also describes the contentment of being in God's presence: "Like a baby content in its mother's arms, my soul is a baby content" (Psalm 131:1-3, The Message), and the anxiety of separation "Don't leave me now; don't abandon me, O God of my salvation! Psalm 27:9 (NIV)".

Therefore it seems, at least in Christian theology, despite God being perceived as *omnipresent,* (that is, present everywhere) there is a different kind of His closeness that religious people seek. This is as real to them as the experience of closeness with another human being. Similarly, lack of closeness with God breeds anxiety, and complete separation from God in the Christian religion is understood as hell itself (Kirkpatrick, 1992).

God as a secure base and a haven of safety

In Bowlby's (1969) theory, the infant seeks proximity to the attachment figure, who serves as a secure base from which the infant initiates his/her exploration. Exploration is initiated when the infant is confident of the unfailing presence of the attachment figure. Any fear or stress experienced during the exploration will lead the infant to seek proximity again with the mother who is his/her haven of safety.

Another parallel between infant and God attachment is that, just as the infant attachment system is activated at times of stress, people often turn to God at times of crisis. This is a well-recognised human response which is supported in literature (Argyle & Beit-Hallahmi, 1975; O'Brien, 1982; Pargament & Hahn, 1986; Ross, 1950). What is more, just as infants' proximity seeking leads to alleviation of anxiety when contact with the caregiver is once again established (Bowlby, 1973), the concept of God as a secure base finds support in the common experience of the religious individual that closeness to God brings feelings of security and comfort. Theologian Johnson (1945) sums it up in the statement that "faith is the opposite of fear, anxiety and uncertainty" (p.191).

Styles of human attachment and attachment to God

It is evident that millions of people around the world experience a personal relationship with God, which is not simply a metaphor, but resembles human relationships in many ways. What is less clear is the way in which individuals' attachment to God relates with their human attachment relationships. Two models have arisen to explain this. The correspondence model postulates that the type of attachment to God someone forms corresponds with the type of attachment relationship they formed with their parents. For example, a person who experienced a secure attachment with his/her parents as an infant is more likely to experience a secure attachment to God. This hypothesis was based on the idea of continuity of internal working models as proposed by Bowlby (1969) and later by Hazan and Shaver (1987) who extended the model to adult relationships. The compensation model proposes that attachment to God is formed to compensate for the

inadequacy of the attachment relationship experienced by an individual in infancy. In this view, someone who had an insecure attachment as a child is more likely to develop a secure attachment to God later in life. Theoretically, this hypothesis was driven by Ainsworth's (1985) finding, that insecure attachment styles lead individuals to seek surrogate attachment figures. Empirical studies have provided support for both models; however, a review of the literature shows that a more complex model may better explain the relationship between infant attachment style and style of attachment to God. Following is a brief overview of the results of these studies.

Initial research done by Kirkpatrick and Shaver (1990) provided some support for the compensation hypothesis. The study surveyed 213 participants on their religious beliefs and activity, their mother's religiosity, and their childhood attachments. Individuals with secure or anxious/ambivalent attachments showed no significant differences in terms of their religious belief or activity; however, those with avoidant attachments showed a higher rate of religious conversions during and after adolescence, compared with the other attachment styles. This effect was strong when their mother's religiosity was low. Later research by Kirkpatrick (1998), provided further support for the compensation model, not only for avoidant attachment styles, but also for anxious-ambivalent styles.

The correspondence hypothesis has also received support. McDonald, Beck, Allison, and Norswortby (2005) explored the relationship between infant attachment style and attachment to God style and found a connection between participants' internal working models of their primary caregivers and internal working models of God. Similar support comes from Birgegard and Granqvist (2004) who conducted experiments of exposure to

subliminal separation stimuli relating to God and 'mother' and found there was a correspondence between attachment styles to parents and to God. Beck and McDonald (2004) also found a correspondence between romantic attachment styles and attachment to God styles.

Longitudinal studies and a meta-analysis provide support for both the correspondence and compensation hypotheses. In a longitudinal study, Granqvist and Hagekull (2003) found an interaction between attachment insecurity and romantic relationship status. Insecurely attached individuals who had separated from a partner showed increased religiousness over the period of the study, whereas insecurely attached individuals who had formed a new relationship showed decreased religiousness. Secure attachments predicted increased religiousness and a more personal relationship with God. In Granqvist and Kirkpatrick's (2004) meta-analysis both the compensation and the correspondence models were supported. The compensation hypothesis received support in that sudden religious conversions were associated with insecure attachments. In contrast, gradual and non-sudden conversions, were associated with secure attachment history, indicating support for the correspondence hypothesis.

Given the mixture of findings it seems likely that the relationship between individuals' attachment to others (especially their parents) and their attachment to God is a complex one, influenced by the type of parental attachment style, the religiosity of parents and romantic attachment status. Another factor which needs to be taken into account is the child's developmental stage. Dickie, Eshleman, Merasco and Shepard (1997) highlighted the relevance of developmental factors by looking at how perceptions of

both parents were related to God images at different stages of development. More specifically, parent and God images tended to correspond in young children but for older children who had started to separate from their parents, God had a more compensatory role.

Attachment to God and mental health

Given the importance of attachment for mental health, reviewed earlier in this chapter, combined with evidence that that attachment to God may be a valid construct, it follows that attachment to God could play an important role for many individuals' mental health and well-being. There is very little research in this area to date, but the few studies that have examined the relationship suggest that a secure attachment to God promotes better mental health and well-being, whereas avoidant and anxious attachment to God styles are related with lower levels of mental health and well-being.

In their 2003 study, Sim and Loh validated a measure of attachment to God and correlated attachment to God with self-esteem, satisfaction and negative affect and optimism. Whilst results supported that attachment to God is a valid construct, distinct from parental attachment, the authors failed to find clear-cut relationships for most mental health variables. However, attachment to God showed incremental validity for optimism, over and above the variance explained by parental attachments. Similarly, Rowatt and Kirkpatrick (Rowatt & Kirkpatrick, 2002) tested the relationship between attachment to God and mental health and personality variables. In this study, Rowatt and Kirkpatrick found anxious attachment to God predicted negative affect and neuroticism

and was negatively correlated with positive affect. Avoidant attachment was negatively correlated with agreeableness. The authors statistically controlled for social desirability, intrinsic religiousness and doctrinal orthodoxy, which provided further evidence for this relationship.

In a study of bereavement, attachment to God and religious coping, Kelley (2003), conducted a retrospective study to explore how attachment to God, attachment to others, mental health and well-being are affected by a significant death and how people draw on religion to cope with stress. Kelley combined quantitative and qualitative data from a total of 94 bereaved participants who completed a mail survey. Thirty-four participants of the total sample completed a similar survey again after a period of three months, and 11 participated in small focus group conversations. Kelly used measures of attachment to God, attachment to others, and a measure of depression twice in the same survey, in the first instance asking participants to recall what those aspects of their lives were like before the death, and in the second instance asking the participants to rate them as they were at the time of the study. Kelley also collected data on religious coping, traumatic grief, stress-related-growth, life attitude, and religious outcome and examined those relationships. The results showed securely attached to God individuals were less likely to suffer from depression (r = -.37), traumatic distress (r = -.23), and more likely to grow through the stressful experience (r = .34) and have a positive religious outcome (r = .37). In contrast, participants who were insecurely attached to God (anxious and avoidant) were more likely to suffer from depression (r = .22 and .42 respectively), traumatic distress (r = .25 and .36) and separation distress (r = .21 and .31). Those with an avoidant attachment to God were less likely to have a positive religious outcome,

whereas there was no significant correlation on this variable for the anxiously attached individuals. Interestingly, Kelley found that attachment to God was a better predictor of outcomes than attachment to others.

Kelley's study was unique in the sense that she attempted to assess how change occurs in attachment to God, attachment to others and mental health as a result of traumatic stress. However, the small sample size, and the fact that the sample consisted only of bereaved individuals, pose a strong limitation in terms of the generalisability of the study. That is, although the findings provide a very useful beginning for this area of research, they cannot be generalised to non-bereaved individuals. Also, the fact that a retrospective design was used imposes a significant limitation on the study as this does not permit causal inferences to be made. That is, it is not possible to determine whether respondents' style of attachment to God before the bereavement was responsible for influencing their mental health following the bereavement. One study that was genuinely prospective in design—and therefore came closer to determining the direction of that relationship—was a study by Maton (1989). This study examined how individuals' relationship with God impacted on their mental health 10 weeks later, and how this effect was influenced by the level of stressful events participants experienced. The study examined the role of one aspect of religiosity, termed spiritual support, as a buffer against life-stress. Maton defined spiritual support as "the perceived, personally supportive components of an individual's relationship with God" (p. 310). This was assessed using only three questions which were: "I experience God's love and caring on a regular basis", "I experience a close personal relationship with God" and "religious faith has not been central to my coping". The content of these questions indicates that

the construct of spiritual support is very similar (though highly simplified) to that of attachment to God.

Maton conducted one correlational and one prospective study: His first study was conducted with a sample of 81 recently bereaved and less recently bereaved parents who comprised a high-stress and low-stress group respectively. Using regression analysis, he found that spiritual support was inversely related to depression (*beta*= -.46) and positively related with self-esteem (*beta*= *.50*) in the high stress group. There were no significant relationships between spiritual support and depression for the low-stress group. In Maton's second study, 68 recently graduated high-school seniors took part in semi-structured interviews and participated in two data collections, (one before starting college, and the second time 10 weeks into their first semester). The students completed the same measure of spiritual support, together with measures of social support, emotional and social adjustment and pre-college depression. The students also completed a 22-item measure of life stress, asking them to indicate whether they had experienced each of the 22 items during the previous six months. Similarly to the first study, two subsamples of high- and low-stress were formed, by dividing the life-stress scale responses at the median. In this study, level of spiritual support predicted personal emotional adjustment (*beta*= .46) for the high stress subsample but did not predict any dependent variables for the low-stress sample. Maton's findings are significant in the sense that they provide evidence that in the presence of high levels of stress spiritual support predicts well-being rather than the reverse, given the prospective design of the study. However, Maton's study had a number of limitations, including a small sample

size, an oversimplified measure of a not-well defined construct, and a sample of solely university students for his prospective study.

Rationale for the study, aims and hypotheses

This study aims to explore the relationship between attachment to God and aspects of mental health in a Christian sample. Only a handful of studies have already investigated this relationship to date and the present study has several features which help remedy the limitations of previous work. Firstly, other studies have been limited by samples that were typically small and taken from the United States. The present study utilises a larger sample and is the first to include New Zealand participants. Secondly, this study aims to explore the direction of the relationship between attachment to God and mental health through the use of a prospective design (i.e., gathering data at two different time-points). This will allow a preliminary investigation of whether attachment to God seems to have a causal impact on mental health. Although this was examined in the study by Maton (1989), that study did not specifically measure the construct of attachment to God. Additionally, Maton did not control for initial levels of mental health, which this study has done. The prospective design will also allow exploration of the level of stability in attachment to God over a 3 month period. Finally, the study will examine how the relationship between attachment to God and mental health is influenced by stressful events.

Hypotheses

In the present study, the following hypotheses will be tested.

1. Higher levels of anxious attachment to God (as measured by the Anxiety over Abandonment Scale of the Attachment to God Inventory, AGI) at time 1 will correlate with poorer mental health at time 1 and 2. Poorer mental health will be indicated by: higher levels of depression as measured by the CES-D, lower levels of positive affect, as measured by the Positive and Negative Affect Scale (PANAS-P), higher levels of negative affect, as measured by the PANAS-N and lower levels of well-being as measured by the Affectometer 2.
2. The relationships found in (1) will continue to be statistically significant even after controlling for level of anxious attachment to others (as measured by the Relationships Questionnaire) at time 1. That is, anxious attachment to God will predict levels of depression, positive affect, negative affect, and well-being over and above the variance accounted for by anxious attachment to others. It was decided to control for attachment to others because of evidence of a strong correlation between attachment to God and attachment to others in previous studies, e.g (Kelley, 2003).
3. Higher levels of anxious attachment to God at time 1 will continue to predict poorer mental health at time 2 after controlling for levels of mental health at time 1. That is, the relationship between time 1 attachment to God and time 2 mental health will not be fully accounted for by the relationship between attachment to God and time 1 mental health.

4. The relationship between levels of anxious attachment to God at time 1 and mental health at time 2 will increase in strength as the level of stressful events the participants have undergone in the last twelve months increases. In other words, the higher level of stress, the stronger the correlation between anxious attachment to God at time 1 and depression, positive affect, negative affect and well-being at time 2. In a similar way, when the sample is divided into high and low stress groups, the relationship between anxious attachment to God and mental health will be stronger in the high stress group.
5. The relationships found in (4) will continue to be significant even after controlling for time 1 mental health and attachment to others.
6. Higher levels of avoidant attachment to God (as measured by the Avoidance of Intimacy Scale of the Attachment to God Inventory, AGI) at time 1 will correlate with poorer mental health at time 1 and 2. Poorer mental health will be indexed in the same way as in (1). However, while the direction of the relationships is expected to be the same as found in (1), the magnitude of those relationships is expected to be lower.
7. The relationships found in (6) will continue to be statistically significant even after controlling for level of avoidant attachment to others at time 1.
8. Higher levels of avoidant attachment to God at time 1 will continue to predict poorer mental health at time 2 after controlling for levels of mental health at time 1. As in (5), the magnitude of those relationships is expected to be lower than the corresponding relationships between *anxious* attachment to God and mental health.

9. The relationship between levels of avoidant attachment to God at time 1 and mental health at time 2 will increase in strength as the level of stressful events the participants have undergone in the last twelve months increases. In other words, the higher level of stress, the stronger the correlation between avoidant attachment to God at time 1 and depression, PA, NA and well-being at time 2.
10. The relationship found in (9) will continue to be significant even after controlling for time 1 mental health and attachment to others.
11. Attachment to God is expected to show stability over time and so it is hypothesised that Attachment to God at time 1will be highly correlated with Attachment to God at time 2.

Summary

Attachment theory is a well-established theory of human relationships that has been powerful in enriching our understanding of enduring affectional bonds. The theory has recently been applied to the way humans relate to God. Research has shown that the construct of attachment to God shares the main characteristics of infant and adult attachment (i.e., proximity seeking, haven of safety and secure base, and protest at separation). Individuals also form secure, anxious and avoidant attachment styles to God which resemble those of infant and adult attachments. Formulations of the relationship between infant and God attachment include a correspondence model, a compensation model, or a more complex relationship, mediated by developmental factors, styles of attachment, degree of religiousness, or a combination of all of the above factors. Given evidence pointing to the importance of attachment relationships for well-being and

mental health, and some preliminary findings on the impact of God attachment on mental health variables, it seems that the construct of attachment to God warrants further study, particularly regarding its potential implications on mental health following stressful events.

Chapter Five: Method

Participants

A total of 1266 participants completed the time 1 survey and a total of 495 completed the time 2 survey. Table 1 presents the demographic information for the time 1 sample. At time 1, the sample consisted of 812 female and 449 male participants (5 participants did not specify gender). The age of the time 1 sample ranged from 16 to 82, with a large number of participants (41.3 percent) between the ages of 20-29. The mean age of the sample was 37.5 years (SD = 15.01).

The time 1 sample represented a wide variety of Christian denominations. The time 1 questionnaire asked respondents to choose from the following options when specifying religious denomination: Catholic, Anglican, Baptist, Presbyterian, Methodist, Pentecostal or 'other'. Because some denominations were specified by such a small number of respondents (e.g., Methodist) and such a large number of respondents specified an 'other' denomination, responses were regrouped to form more meaningful groups. According to these groupings, just over 85% of the sample were Protestant: 13.9% were Mainstream Protestants, 38.3% Pentecostal/Charismatic, and 32.9% Evangelical. Only 13.9% of the sample specified their denomination as Catholic. The sample ranged on their level of religious commitment from 11-50 and had a high level of religious commitment, M = 39.6, SD =7.7, scores over 38 are considered to represent high religious commitment (Worthington et al., 2003). The vast majority of participants were living in New Zealand at the time of completing the time 1 survey (83.5%), and

there were a small numbers of participants from 21 other countries. The most common other countries were: Australia (6.9%), United States (5%). Most time 1 respondents completed the questionnaire online (73.9%).

Table 1

Demographic Descriptors of Respondents at Time 1.

Variable		*n*	%
Gender			
	Male	449	35.5
	Female	812	64.1
Age			
	16-19	87	6.9
	20-29	425	41.3
	30-39	184	14.5
	40-49	252	19.9
	50-82	291	23.0
Religious affiliation			
	Pentecostal/charismatic	485	38.3
	Evangelical	417	32.9
	Non/inter-denominational	103	8.1
	Mainstream protestant	44	3.5
	Catholic	176	13.9
Country			
	New Zealand	1057	83.5
	Other	209	15.5
Web or paper completion of the questionnaire			
Web		935	73.9
Paper		331	26.1

Table 2

Demographic Descriptors of matched sample at Time 2.

Variable		*n*	%
Gender			
	Male	141	32.3
	Female	291	66.6
Age			
	16-19	26	5.9
	20-29	138	31.6
	30-39	69	15.8
	40-49	87	19.9
	50-82	111	25.4
Religious affiliation*			
	Pentecostal/charismatic	173	39.6
	Evangelical	151	34.6
	Non/inter-denominational	23	5.3
	Mainstream protestant	13	3.0
	Catholic	64	14.6
Country*			
	New Zealand	375	85.8
	Other	62	14.2
Web or paper completion of the questionnaire			
Web*		346	79.2
Paper*		91	20.8

*As reported by time 2 sample at time 1

Demographic information for the time 2 sample is presented in Table 2. At time 2, the matched sample consisted of 437 participants (58 participants who responded at time 2 could not be matched with a time 1 survey, as their responses to the "matching questions" at time 2 did not match any time 1 responses). Of these 437 participants, 291 were female, 141 male and the remaining 5 respondents did not specify their gender. The age of the participants again ranged from 16 to 82, with a large number of participants (31.6%) between the ages of 20-29. Religious denomination (taken from the respondents' time 1 responses) was similar to the full time 1 sample, with just over 85% of participants from a variety of protestant denominations and 14.6 percent from the Catholic denomination. Religious commitment was almost identical to the time 1 sample and it ranged from 11-50, with a mean of $M = 40.2$, $SD = 7.4$. Most participants completed the questionnaire in New Zealand (79.2 %) and most completed the questionnaire online (85.8 %).

Procedure

The study was approved by the Massey University Albany Human Ethics Committee (ALB 06/017). A prospective, within-groups design was employed to explore the relationship between Christians' attachment to God and mental health and how it is influenced by stressful events. The study involved the administration of two questionnaires: a time 1 survey which was distributed between the months of May and July, and a time 2 survey, which was distributed in the months of November and December. The time 2 survey was similar in content to time 1, but did not include the measure of religious commitment (RCI) or demographic questions regarding religious

denomination and country. The time 2 survey also included a measure assessing the stressors participants had experienced in the past 12 months.

The survey was distributed in two ways-by paper questionnaires and by an online questionnaire version. In total, 1266 questionnaires were completed at time 1. The total number of paper questionnaires distributed was 990 and 331 of those were returned, resulting in a 33.4% response rate. The online version produced 996 responses, however there is no way to calculate a response rate on the online questionnaires as the email invited people to forward the survey to any Christian contacts they had and there is no way of determining the final number of people who received the email.

In terms of the paper questionnaires, 103 questionnaires were distributed at a Christian women's conference, 130 at a Christian university group, 541 were handed out by the researchers or friends of the researchers at mostly Pentecostal and Evangelical churches, and 216 were given to Christian friends from different churches and denominations. Those participants who completed the paper copy of the questionnaire returned the questionnaires by mail, using the pre-paid return-addressed envelope provided with the questionnaire. Those who completed the web-based version of the measure submitted it online. The data from the web-survey was automatically uploaded into an excel sheet.

All participants were provided with an information sheet (either on paper or on the first webpage of the survey) describing the survey. This information sheet explained that participants did not need to answer any questions that caused them discomfort or distress. The information sheet also advised that if distress occurred, participants should contact

their pastor. Pastors were asked for their consent to this when they gave permission for the questionnaires to be distributed in their church. Three independent counsellors had agreed to provide counselling, in the event that any participants may have needed counselling as a result of distress due to the survey. However, no participants expressed any such discomfort or distress.

Completion of the questionnaire implied consent, which was stated on the information sheet. Anonymity of the participants was protected by not linking responses with identifying information provided in order for the time 2 survey to be sent. Questionnaires at time 1 and time 2 were linked by matching the two identifying questions between questionnaires (father's name and mother's maiden name). Most of the data were entered in bulk by individuals employed by the researchers, ensuring there was no identification of participants known to the researchers. Access to the data will be available to Panagiota Duncan and Paul Merrick (Supervisor), Sarah Calvert and Dave Clarke (Supervisor), Patrick Dulin (co-supervisor) and the individuals paid to enter the data. The supervisors Paul Merrick and Dave Clark are responsible for destroying the questionnaires after 5 years.

Those who completed the paper questionnaire at Time 1 received the following:

1. An information sheet explaining the nature of the study (Appendix A)
2. The questionnaire (Appendix B), containing:

   (1) Two attachment to God measures combined to form a single scale, These were: the Attachment to God Inventory, (AGI) (Beck & McDonald, 2004) and an

unnamed scale by Rowatt and Kirkpatrick (Rowatt & Kirkpatrick, 2002)

(2) The Affectometer 2: a well-being scale (Kammann & Flett, 1983)

(3) The Positive and Negative Affect Scale (PANAS) (Watson, Clark, & Tellegen, 1988)

(4) The Relationship Questionnaire (Bartholomew & Horowitz, 1991)

(5) The Centre for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977)

(6) The collaborative coping scale of the R-COPE (Pargament, Koenig, & Perez, 2000) (a measure of religious coping).

(7) A 4 item measure of whether one's relationship with God is experienced as primarily a negative or positive influence in one's life (designed for this study).

(8) The Religious Commitment Inventory (RCI-10) (Worthington et al., 2003)

(9) Demographic questions: Gender, date of birth, religious affiliation, frequency of religious attendance, and two 'identifiers' (mother's maiden name and father's name).

3. A 'name and address' form (Appendix C). This form was completed by those participants who agreed to complete the measures again at time 2.
4. Two pre-paid, return-addressed envelopes (one for the questionnaire to be returned in, the other for the 'name and address form' to be returned in).

The online version of the questionnaire was identical to the paper copy, with the information sheet on the first page, and a page requesting the participants' contact details (not linked with their responses in order to protect anonymity) at the end

(Appendix D). After completion of the survey, participants were asked if they would like to participate at the second administration of the survey.

Approximately 4-5 months later (depending on when the first survey was completed), in mid-November, the participants who agreed to be contacted again for a similar survey were administered the second survey. 126 participants were mailed the second survey and the URL link for the survey was sent to 785 participants, by email. There were 465 responses to the online version and 40 paper-copy responses, rendering a 54 % response rate.

Measures

Appendices B and E contain the time 1 and time 2 questionnaires used in the present study. Both questionnaires were composed of measures of: attachment to God (items for this scale were taken from two existing attachment to God scales), adult attachment, mental health (three scales were used, measuring depression, well-being and negative and positive affect) questions on demographic information, and two 'matching questions'. In terms of demographics, both questionnaires asked for gender and date of birth, and the time 1 questionnaire also asked respondents to specify their religious denomination and to complete the Religious Commitment Inventory. The web-version of the time 1 questionnaire also contained a question asking respondents to specify which country they were currently living in (it was unnecessary to ask this question on the paper questionnaire given that the paper survey was distributed within New Zealand

only, and the freepost envelopes could be used only within New Zealand). Two questions were used to match respondents' time 1 and time 2 surveys without compromising anonymity. These questions were: (1) mothers' maiden name and (2) fathers' first name. Only those who wished to take part in the time 2 survey completed these questions. Because this study was conducted in co-operation with another researcher, working on a different study, some of the measures included in the survey were not utilised in the present study and therefore will not be reviewed.

The Attachment to God Inventory

The Attachment to God Inventory (AGI) (Beck & McDonald, 2004) is a 28-item self-report scale, rated on a 7-point Likert scale (1 = Disagree strongly to 7 = Agree strongly) which measures two dimensions of attachment to God: Avoidance of Intimacy (AGI-Avoidance) and Anxiety about Abandonment (AGI-Anxiety). Beck and McDonald modelled the Attachment to God Inventory after Brennan et al's. (Brennan, Clark, & Shaver, 1998) Experiences in Close Relationships Scale (ECR). Brennan et al. conducted factor analyses on existing measures of attachment and produced a two-dimensional scale, measuring avoidance of intimacy and anxiety about abandonment. Categories of attachment, such as Secure, Preoccupied, Dismissing and Fearful can be estimated, if the scale is dichotomised, but the authors support the usefulness of a dimensional model over a categorical one. The content of the items is very similar to the ECR, only modified to reflect people's experiences of attachment with God. For example, items in the Anxiety dimension include "I often worry about whether God is pleased with me" and "I fear God does not accept me when I do wrong." Items on the Avoidance dimension include, "I prefer not to depend too much on God" and "I just

don't feel a deep need to be close to God". The two subscales produced good internal consistency, with alpha coefficients of .80 (Anxiety) and .84 (Avoidance).

The Attachment to God Inventory is a very new measure, and as such, has a number of limitations, including its limited validity evidence and the lack of generalisability of the existing validity evidence, given that the validation sample was predominantly Christian graduate students, mostly of the Church of Christ denomination. However, because the attachment to God research is a relatively new stream in the literature, most measures suffer from similar problems. Furthermore, most measures have been developed using a categorical classification of attachment, which fails to grasp important levels of attachment dimensions, making it an inferior alternative to a dimensional model, as power is lost in statistical analyses (Crowell, 1999; Fraley, 1998).

In the present study, the items from the AGI were combined with items from another measure of attachment to God not used in this study (Rowatt & Kirkpatrick, 2002), and the items were rated on a slightly different Likert scale, containing the following anchors: strongly agree, agree, neutral/mixed, disagree and strongly disagree. These changes were made by the other researcher using data from the same questionnaire, who is investigating properties of these two measures of attachment to God. In the present study, the AGI subscales showed good levels of internal consistency similar to the levels found by Beck and McDonald (2004), with alpha coefficients of .87 (Anxiety of Abandonment) and .83 (Avoidance of Intimacy) respectively.

The Affectometer 2

The Affectometer 2 (Kammann & Flett, 1983) is a 20-item, self-report scale that asks participants to rate the frequency with which they have experienced a range of feelings. These feelings are described by 20 alternate positive and negative sentences or adjectives that constitute the list, over the past few weeks. The factors of happiness assessed are confluence, optimism, self-esteem, self-efficacy, social support, social interest, freedom, energy, cheerfulness, and thought clarity. The 20 sentence list can be used on its own, separate from the adjective list, without compromising the reliability of the scale (Kammann & Flett, 1983). The Affectometer has shown good psychometric properties, with strong internal consistency (Cronbach's alpha of .95), and good test retest reliability, r = .83. In this study, only the sentence part of the Affectometer 2 was used, as the adjective items significantly overlapped with the PANAS (which was used in the same questionnaire). Examples of the positive sentences on the Affectometer 2 are: *My life is on the right track, I think clearly and creatively, I smile and laugh a lot* and *I feel loved and trusted.* The negative sentences include: *I feel like a failure, I feel like the best years of my life are over, my life seems stuck in a rut,* and *I feel there must be something wrong with me.* An overall well-being score is derived by subtracting the negative item scores from the positive item scores. These overall well-being scores range from -4 to 4. Internal consistency for the Affectometer 2 in this study was good with a coefficient alpha .85 and .88 for the positive and negative sets of statements respectively.

The Positive and Negative Affect Scale (PANAS)

The Positive and Negative Affect Scale (PANAS) (Watson et al., 1988) is a self-report, 20-item instrument that assesses positive and negative mood from a list of single-word items, on a scale of 1 (not at all)-5 (extremely). Watson et al. developed this brief and easy to administer scale in order to provide a quick but valid and reliable mood measurement instrument. High positive affect scores measure how attentive, interested, excited, inspired, proud, determined, strong, enthusiastic, active and alert a person feels, whilst high negative scores reflect the degree to which the participant has had moods such as anger, distress, guilt, fear and nervousness. Low positive affect indicates sadness and lethargy, whereas low negative affect indicates calmness and serenity (Watson et al., 1988).

The authors of the scale reported alpha coefficients of .86 to .90 for the positive affect and .84-.87 for the negative affect subscales and very low correlations between the two subscales (as expected) of $r = -.12$ to $r = -.23$, with the scales sharing 1-5% of variance. The PANAS also performed highly in test-retest reliability (.45-.71) and stability tests, which led the authors to suggest it may be a good affective trait measure if the questions are worded in less time-specific terms. The PANAS has correlated well with other measures of depression and anxiety, such as the Hopkins Symptom checklist (HSCL), the Beck Depression Inventory, (BDI) and the State Anxiety Scale (A-State) providing evidence for construct and convergent validity (Watson et al., 1988). In the present study, the coefficient alpha of the positive affect subscale was .89 and the coefficient alpha for the negative affect subscale was .88, indicating good internal consistency for both subscales. One item from the PANAS-P scale (proud) was not used in the

questionnaire because of the negative connotations the word 'proud' has for the Christian religion.

The Relationship Questionnaire

The Relationship Questionnaire (Bartholomew & Horowitz, 1991) is a measure of adult attachment to others. Participants are asked to rate, on a 1-7 Likert scale, their agreement with each of four short paragraphs describing each of the four attachment relational styles, Secure, Avoidant, Preoccupied, and Dismissive. For example, the paragraph on secure attachment style asks the respondent's degree of agreement with the statements "It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me" The four styles are then collapsed into two dimensions of Avoidance and Anxiety by adding and subtracting different items.

The Centre for Epidemiologic Studies Depression Scale (CES-D)

The CES-D (Radloff, 1977) is a 20-item, self-report scale which measures depressive symptoms in the general population. The scale has been used in household, primary-care and psychiatric settings, and different age populations, and has been found to have very high reliability and validity in primary-care settings (Myers & Weissman, 1980). The CES-D items have been drawn from previous, well-established measures of depression, such as the BDI, the ZSDS, and the Minnesota Multiphasic Personality Inventory (MMPI) (Hathaway & McKinley, 1983). Using a 4-point Likert scale, respondents rate how often they have experienced depressive symptoms over the past week, from "rarely" to" most of the time". Scores range from 0-60 and higher scores indicate more

symptoms, with 16 being the commonly used cut-off point (Radloff, 1977). The CES-D has been found to have good reliability and validity overall, with coefficient alpha of .90 for patients and .85 for non-patients, and test-retest reliability over 6 months of .54 (Radloff, 1977).

In 2002, Beekman et al. (2002) used the CES-D in a longitudinal study of 277 depressed elderly patients followed for 6 years. The researchers used face-to-face interviews and postal questionnaires, and found criterion validity for MDD when using a cut-off score of 16 to be excellent, with 100% sensitivity and 88% specificity. The CES-D converges well with other measures of depression. Weissman, Sholomscas, Pottenger, Prusoff and Locke (1977) found excellent concurrent and convergent validity with correlations of .81 with the BDI and .90 with the ZUNG. Latest research has found it to be reliable and valid with adolescents, (Stansbury, Ried, & Velozo, 2006), the elderly (Beekman, 2002) and women of low income (Spielberger, Ritterband, Reheiser, & Brunner, 2003) In a review of the instrument, Antony and Barlow (2002) report that the CES-D has been criticised for insufficient specificity and predictive validity (Fechner-Bates, Coyne, & Schwenk, 1994; Santor & Coyne, 1997), insufficient coverage of all the DSM-IV criteria, (Zimmerman & Coryell, 1994) and potential gender bias on some items (Stommel, Given, Given, Kalaian, & et al., 1993); however, the authors point out that despite these limitations, the CES-D is widely used, and suitable as an initial screening instrument. Due to its reasonable length and suitability for the general population, the CES-D was selected as a particularly appropriate instrument for this study, in contrast to other well-known instruments, such as the BDI-II, which is more appropriate for clinical use. Cronbach's alpha for the CES-D in this study was excellent, at .90.

The Religious Commitment Inventory

The Religious commitment Inventory (RCI-10) (Worthington et al., 2003) is a 10-item self-report scale, designed to measure individuals' perceived importance of religion and the degree of religious practice they engage in. Items are rated on a Likert scale of 1-5 (1 = not at all true of me-2 = totally true of me) and assess participants' agreement with attitude statements such as, "Religion is especially important to me because it answers many questions about the meaning of life", and questions of religious practice, such as "It is important to me to spend periods of time in private religious thought and reflection". The RCI has been evaluated in a number of studies and has demonstrated good reliability and validity, especially for Christian samples (Worthington et al., 2003).Whilst the studies on the RCI-10 were conducted on predominantly college students, the authors endorse its use for community samples. Internal consistency of the measure is also good, with Cronbach's alpha of .92-.98 and repeat administrations at 3 weeks and 5 months showed strong test-retest reliability (.84), construct validity and discriminant validity (Worthington et al., 2003)). Scores range from 10-50, with a score of 38 indicating highly religious individuals. In this study Cronbach's alpha showed good internal consistency with an alpha coefficient of .87.

The Psychiatric Epidemiology Research Interview (PERI) Life Events Scale

The PERI (Dohrenwend, Krasnoff, Askenasy, & Dohrenwend, 1978) is a 102 item self-report checklist used to assess the incidence and magnitude of stressful events within a specific prior time-period. The PERI has been derived from Holmes and Rahe's (1967) Schedule of Recent Experiences (SRE), which was designed to measure stressful events prior to the onset of an illness. The choice of items is a result of years of revisions of

other scales of stressful life-events and scores are calculated by summing all the individual weightings for each stressful event. The weightings are a result of consensus between a panel of judges in the original construction of the scale (Dohrenwend et al., 1978). For the purposes of this study, the 102 item version of the scale was deemed too time-consuming and for that reason, 3 independent raters had to reach consensus on how to condense items of similar content. Respondents were asked to indicate on the checklist the occurrence of 41 events within the categories of *Housing and Finance, Work/School Training Program, Legal, Relationships,* and *Other.* It was decided to use only the negative items from the PERI scale because the theory that drives this research supports the view that the attachment behavioural system is activated at times of stress or loss, which is what the PERI negative events items measure.

Because of the length of the instrument, items that were very unlikely to occur in the sample used for this study were omitted. In the questionnaire, three open-ended questions were included for participants to specify any other events that they experienced within the 12 month time-frame that did not fall within the specified categories. These questions were independently rated by the two researchers. Turner and Wheaton's (Turner & Wheaton, 1995) guidelines on the sufficiency of group average weightings were followed and the procedure for rating these items was as follows: First, items that matched, or were very close to, any specified items in the PERI were given the assigned weight value of the measure. Second, items that were reflections of mental health problems, rather than stressful events (i.e. depression) were deleted. Thirdly, PERI items were split into three groups of low, medium and high impact, according to their specified weightings by Dohrenwend, Krasnoff, Askenasy, & Dohrenwend, (1978).

Then, the weightings for each category were averaged. Two raters assigned each stressful event to any of the three categories of impact (low, medium or high). Inter-rater agreement for this was high at 83%. After reaching consensus on the items where there was disparity of rating, the average weighting of each category was used to replace nominal with numerical values.

Data analysis

Data were entered into a SPSS 12.0 data file and inferential and descriptive statistics were used for analysis. The distributions of all scales were assessed for skewness, kurtosis, normality and homeoscedascity. Box-plots were visually inspected for outliers and two outliers were identified in the PERI stressful events scale. These participants' responses were not used in the analysis. The RCI was found to be negatively skewed, showing a higher level of religious commitment, however the RCI was not used in the analysis, making transformation unnecessary. The CES-D was found to be positively skewed and the Affectometer 2 was negatively skewed, therefore ranking transformations were used to assess whether the skewness affected the results. The same conclusions were found when ranked data were analysed. That is, the conclusions were not invalidated by lack of normality in the responses. Also, given the large size of the sample (over 200 cases), small deviations from normality are unlikely to make a substantial difference in the results (Tabachnick & Fidell, 2007), therefore the analyses were conducted with the non-transformed data. The following variables were assessed: Attachment to God Anxiety (AGI-Anxiety), Attachment to God Avoidance (AGI-Avoidance), Attachment to Others Anxiety, (ATO-Anxiety) Attachment to Others

Avoidance, (ATO-Avoidance) level and number of stressful events participants had experienced in the last twelve months, depression, positive and negative affect and well-being. Demographic data were gathered on participants' age, gender, country, completion of the questionnaire online or on paper, religious denomination and religious commitment.

Pearson's product-moment correlations were used to assess the relationships between all continuous variables. T-tests for independent samples were used to assess whether there were differences between those who responded to the second administration of the questionnaire and those who did not (i.e., those who provided only time 1 data). T-tests were used to compare respondents and non-respondents on the following continuous variables: age, religious commitment (RCI-10), AGI-Anxiety, AGI-Avoidance, ATO-Anxiety, ATO-Avoidance, depression, positive and negative affect and well-being. All differences between respondents and non-respondents were non-significant ($p > .05$) with the exceptions of the following scales: RCI-10 (non-respondents $M = 39.21$; respondents $M = 40.25$; $t = 2.3$; $p = .02$), PANAS-N (non respondents $M= 20.33$; respondents $M = 19.29$; $t = 2.45$; $p = .01$). The Mann-Whitney U- test was used to compare respondents and non-respondents on three discrete variables: gender, religious denomination and country and there were no significant differences between the two groups on any of the above variables ($p > .05$).

Missing data was not a concern in the data set. Missing data ranged between 0-3.7 percent across scales. Where there were missing data on discrete variables (e.g., gender, religious denomination), pairwise deletion was used. Pairwise deletion was also used

where there was 20 percent or more of a scale missing from a respondent, as recommended by Kinnear (2004) for instances where prediction of scores with imputation is not suitable. Hence, those scales were entered as completely missing data. However, where less than 20% of a scale's items were missing, missing data was replaced using the expectation-maximization method (EM). The EM (expectation maximization) method estimates missing values by an iterative process. Each iteration has an E step to calculate expected values of parameters and an M step to calculate maximum likelihood estimates.

Descriptive statistics were used to analyse the demographic information and each of the scales used for means, standard deviations, sample size and range of responses. Internal consistency was also assessed by Cronbach's alpha for each scale. A range of inferential analyses included the following: Firstly, bivariate correlations were conducted to assess the relationship between attachment to God and the four mental health variables. Secondly, partial correlations were conducted in order to control for attachment to others, time 1 mental health, level of stressful events and attachment to others. Because of a significant correlation between age and anxious attachment to God was found, age was also controlled for in the AGI-Anxiety correlations.

To assess the moderating role of stress on the relationship between attachment to God and mental health two separate analyses were conducted. Firstly, Spearman's product-moment partial correlations were used to assess the impact of removing the amount of variance stress can account for from the total correlation between attachment to God and mental health. Secondly, data were analysed by bivariate and partial correlations while

splitting the sample at the median of weights of stressful events into a high stress and a low stress group.

Chapter Six: Results

Information on the means, standard deviations and ranges of the scales used are found in tables 3 and 4. Participants at both time-points tended to have lower than average scores on the CES-D and PANAS-N and higher than average scores on the PANAS-P and the Affectometer, and had high levels of religious commitment as assessed by the RCI-10.

Table 3

Time 1 Scale Information

Scale	N	M	SD	Median	Range	Cronbach's alpha
Attachment to God Inventory						
Anxiety	1265	33.46	9.15	33	14-65	.87
Avoidance	1265	34.12	8.23	34	14-64	.83
CES-D	1255	11.07	9.13	8	0-55	.90
Affectometer 2	1263	1.40	1.27	3	-3.80-4	.85,.88*
PANAS-P	1265	32.06	6.14	33	13-45	.89
PANAS-N	1265	19.97	7.23	18	10-49	.88
RCI	1259	39.57	7.7	41	11-50	.87
Relationship Questionnaire						
Anxiety		-1.38	3.90	-2	-12-11	NA**
Avoidance		-1.49	3.94	-2	-12-11	NA**

N = number of people who provided complete data for this scale, or completed at least 80% of the scale (allowing the missing item scores to be calculated using EM).
*Cronbach's alpha calculated for two subscales.
**Not possible to calculate alphas because of the nature of the scale.

Table 4

Time 2 Scale Information

Scale	M	SD	Median	Range	Cronbach's alpha
Attachment to God Inventory					
Anxiety	32.25	9.24	31	14-60	.89
Avoidance	34.65	8.01	34	16-62	.84
CES-D	10.72	8.83	8	0-49	.90
Affectometer 2	1.40	1.35	1	-3.80-3.40	.86,.88*
PANAS-P	32.01	6.02	33	11-45	.89
PANAS-N	19.03	6.70	18	10-45	.87
PERI total negative events	2.38	2.28	2	0-16	NA**
PERI Total weight of negative events	933.9	902.3	731	0-6083	NA**

*Cronbach's alpha calculated separately for positive and negative statements of the total scale.
**Not possible to calculate Cronbach's alpha because the nature of the scale.

Hypothesis 1: Higher levels of anxious attachment to God AGI at time 1 will correlate with poorer mental health at time 1 and 2.

Pearson's product-moment correlations were used to investigate the relationship between anxious attachment to God and mental health (CES-D, Affectometer 2, PANAS-P and PANAS-N) at time 1 and at time 2. These correlations are shown in tables 5 and 6. As predicted, at both time 1 and 2, anxious attachment to God related strongly to all measures of mental health. The associations between anxious attachment to God at time 1 and depression and negative affect (as measured at time 1) were strong (r= .52 and .50 respectively) and positive. All correlations are interpreted according to the estimations of effect size by Cohen (Cohen, 1988). The association between anxious attachment to God at time 1 and well-being was strong and negative (r = -.51), while the association between anxious attachment to God and positive affect was moderate and negative (r = -.41). That is, higher levels of anxious attachment to God were associated with higher levels of depression and negative affect and lower levels of positive affect and well-being.

Table 5

Table of Correlations Time 1

	2	3	4	5	6	7	8
1. CES-D	**-.565**	**.708**	**-.602**	**.516**	**.104**	-.070	**-.253**
p	.000	.000	.000	.000	.000	.013	.000
2. PANAS-P		**-.389**	**.577**	**-.410**	**-.277**	.009	**.121**
p		.000	.000	.000	.000	.749	.000
3. PANAS-N			**-.523**	**.501**	**.134**	-.031	**-.338**
p			.000	.000	.000	.274	.000
4. Affectometer 2				**-.513**	**-.258**	.0034	**.103**
p				.000	.000	.223	.000
5. AGI Anxiety					**.280**	-.033	**-.287**
p					.000	.248	.000
6. AGI Avoidance						**.190**	-.005
p						.000	.848
7. Gender							.069
p							.000
8. Age							
p							

Note. Ns from which correlations were calculated range from 1227 to 1266 due to missing data. Bold type represents 'small' effect sizes ($.1 < r < .3$ or $-.3 < r < -.1$). Bold, underlined type indicates 'medium' effects ($.3 < r < .5$ or $-.5 < r < -.3$). Bold, doubled underlined type indicates 'large' effects ($r > .5$ or $r < -.5$).

Table 6

Correlations and Partial Correlations for AGI-Anxiety Time 1 and MH Variables Time 2

Mental health measure	Raw correlations	Controlling for ATO-Anxiety	Controlling for age	Controlling for ATO-anxiety and age
CES-D	**.407**	**.306**	**.367**	**.276**
p	.000	.000	.000	.000
PANAS-P	**-.291**	**-.207**	**-.264**	**-.188**
p	.000	.000	.000	.000
PANAS-N	**.439**	**.350**	**.380**	**.296**
p	.000	.000	.000	.000
Affectometer 2	**-.406**	**-.316**	**-.390**	**-.307**
p	.000	.000	.000	.000

Note. Bold type represents 'small' effect sizes ($.1 < r < 0.3$ or $-.3 < r < -.1$). Bold, underlined type indicates 'medium' effects ($.3 < r < .5$ or $-.5 < r < -.3$).

Anxious attachment to God related with mental health variables at time 2 in an almost identical pattern: it showed a strong negative correlation with well-being ($r = -.41$, $p < .001$), a moderate negative correlation with positive affect ($r = -.29$), a strong positive correlation with negative affect ($r = .44$) and a moderate positive correlation with depression ($r = .41$) (see table 6). Table 7 presents all correlations at time 2, which show similar patterns with the time 1 relationships. This is for the reader's interest, since no hypotheses are based on the time 2 relationships.

Table 7

Table of Correlations Time 2

	2	3	4	5	6	7	8
1. CES-D	**-.639**	**.708**	**-.663**	**.484**	.055	-.031	**-.197**
p	.000	.000	.000	.000	.226	.499	.000
2. PANAS-P		**-.433**	**.565**	**-.385**	**-.218**	-.021	**.153**
p		.000	.000	.000	.000	.652	.010
3. PANAS-N			**-.563**	**.531**	.091	-.034	**-.318**
p			.000	.000	.047	.457	.000
4. Affectometer 2				**-.503**	**-.188**	-.036	**.123**
p				.000	.000	.434	.000
5. AGI Anxiety					**.252**	-.002	**-.340**
p					.000	.958	.000
6. AGI Avoidance						**.219**	-.038
p						.000	.413
7. Gender							.011
p							.812
8. Age							
p							

Note. Bold type represents 'small' effect sizes ($.1 < r < 0.3$ or $-.3 < r < -.1$). Bold, underlined type indicates 'medium' effects ($.3 < r < .5$ or $-.5 < r < -.3$). Bold, doubled underlined type indicates 'large' effects ($r > .5$ or $r < -.5$).

Hypothesis 2. The relationships found in (1) will continue to be statistically significant even after controlling for level of anxious attachment to others.

Anxious attachment to God and anxious attachment to others were moderately correlated in the time 1 sample (r = .39), and avoidant attachment to God showed a small correlation with avoidant attachment to others (r= .24). Partial correlations revealed that, as expected, correlations between anxious attachment to God and mental health were slightly weaker, but remained significant after the level of variance explained by attachment to others had been partialled out. Anxious attachment to God at time 1 still showed a moderate negative correlation with well-being (r = -.32) and a small negative correlation with positive affect (r = -.21), and moderate positive correlations with negative affect (r = .35) and depression (r = .31) at time 2. Most correlations decreased from strong to moderate, with the exception of positive affect, which decreased to small; however, all correlations remained significant at the $p < .001$ level.

Hypothesis 3. Higher levels of anxious attachment to God at time 1 will continue to predict poorer mental health at time 2 after controlling for levels of mental health at time 1.

Partial correlations revealed that, as predicted, after partialling out the variance accounted for by levels of mental health at time 1, anxious attachment to God continued to have statistically significant relationships with depression (r = .13), negative affect (r = .15) and well-being (r = -.21). Although these relationships remained statistically significant, all correlations were 'small'. After controlling for time 1 mental health, anxious attachment to God was uncorrelated with positive affect (Table 8).

Table 8

Simple and Partial Correlations Between Time 1 AGI-Anxiety and Time 2 MH Variables, Controlling for Stressful events, Corresponding Time 1 Mental Health Variable*, and Attachment to Others

Time 2 Mental Health measure	Raw correlation with T1 AGI-Anxiety	Controlling for T1 MH*	Controlling for T1 ATO	*Controlling for T1MH and ATO*
CES-D	**.407**	**.131**	**.306**	**.118**
p	.000	.006	.000	.014
Control stress**	**.396**	**.125**	**.296**	**.112**
p	.000	.009	.000	.021
PANAS-P	**-.291**	-.087	**-.209**	-.056
p	.000	.072	.000	.250
Control stress	**-.285**	-.077	**-204**	-.047
p	.000	.110	.000	.336
PANAS N	**.439**	**.153**	**.350**	**.136**
p	.000	.001	.000	.005
Control stress	**.430**	**.149**	**.341**	**.132**
p	.000	.002	.000	.006
Affectometer 2	**-.406**	**-.215**	**-.317**	**-.179**
p	.000	.000	.000	.000
Control stress	**-.394**	**-.204**	**-.305**	**-.167**
p	.000	.000	.000	.001

Note. Bold type represents 'small' effect sizes ($.1 < r < 0.3$ or $-.3 < r < -.1$). Bold, underlined type indicates 'medium' effects ($.3 < r < .5$ or $-.5 < r < -.3$).

*E.g in the correlation between AGI anxiety and CES-D at time 2, the corresponding mental health variable used as a control variable in the second column is CES-D scores at time 1.

**Correlation of measure with CES-D, controlling for level of stressful events

Hypothesis 4: The relationship between levels of anxious attachment to God at time 1 and mental health at time 2 will increase in strength as the level of stressful events the participants have undergone in the last three months increases.

Contrary to expectations, the level of stressful events did not appear to moderate the relationship between anxious attachment to God and most mental health variables when the sample was analysed as a whole (see Table 8, column 1). This was also the case when the sample was split into high- and low-stress groups (Table 9), with the exception of well-being. As shown in Table 8, correlations between anxious attachment to God at time 1 and mental health variables at time 2 showed very little change when controlling for stressful events. Correlations dropped from a raw correlation of r = .41 to a partial correlation of r = .40 for depression, from r = -.29 to r = -.28 for positive affect, from r = .44 to r = .43 for negative affect, and from r = -.41 to r = -.39 for well-being (Table 8, column 1). When the sample was split into high and low stress groups (Table 9, column 1), the relationships between anxious attachment to God and time 2 depression, positive affect and negative affect were almost identical in the low and high stress groups. However, this hypothesis found support in the substantial increase in the size of the correlation between anxious attachment to God and well-being in high-stress group. That is, the correlation between anxious attachment to God and well-being in the low-stress group was 'moderate' (r = -.30), and this correlation became 'large' (r = -.50) in the high-stress group. In other words, among those participants who had experienced a greater total level of stressful events, the relationship between level of anxious attachment to God at time 1 and well-being at time 2 was stronger than for those participants who had experienced a lower level of stressful events.

Table 9

Simple and Partial Correlations Between Time 1 AGI-Anxiety and Time 2 Mental Health Variables for the Low-Stress and High-Stress Groups

Time 2 Mental Health measure	Raw correlation with T1 AGI-Anxiety	Controlling for T1 MH	Controlling for T1 ATO	***Controlling for MH and ATO***
CES-D – LS	**.400**	.057	**.337**	.068
p	.000	.400	.000	.321
CES-D – HS	**.404**	**.183**	**.258**	**.140**
p	.000	.007	.000	.042
PANAS-P – LS	**-.283**	.012	**-.233**	.033
p	.000	.859	.001	.635
PANAS-P – HS	**-.287**	**.-139**	**-.166**	-.089
p	000	.042	.015	.194
PANAS-N – LS	**.425**	**.324**	**.348**	**.263**
p	.000	.000	.000	.000
PANAS-N – HS	**.443**	**.400**	**.340**	**.327**
p	.000	.000	.000	.000
Affectometer 2 – LS	**-.303**	-.057	**.324**	-.022
p	.000	.403	.000	.746
Affectometer 2 – HS	**-.504**	**-.378**	**.400**	**-.333**
p	.000	.000	.000	.000

Note. Bold type represents 'small' effect sizes ($.1 < r < 0.3$ or $-.3 < r < -.1$). Bold, underlined type indicates 'medium' effects ($.3 < r < .5$ or $-.5 < r < -.3$). Bold, doubled underlined type indicates 'large' effects ($r > .5$ or $r < -.5$).

Hypothesis 5: The relationships found in (4) will continue to be significant even after controlling for time 1 mental health and attachment to others.

This hypothesis was dependent on findings of hypothesis 4. Only one significant relationship was found in support of hypothesis 4 in the moderating role of stress between anxious attachment to God and well-being in the high-stress group. This relationship was reduced from strong to moderate for high stress group after controlling for time 1 mental health (r = -.38) and attachment to others (r = .40) and both time 1 and attachment to others simultaneously (r = -.33) as shown in table 9. Because stress did not appear to moderate any other relationships between anxious attachment to God and mental health in hypothesis 4, either when the sample was analysed as a whole, or when split in high- and low-stress groups, this part of hypothesis 5 found no support. Examining the sample as a whole (Table 8), showed that when all three variables of stressful events, time 1 mental health and anxious attachment to others were partialled out, all correlations decreased from moderate and strong, to small but all remained significant. That is, the control variables accounted for a substantial but not all the amount of variance in the relationship between anxious attachment to God and mental health; however, stress did not have the predicted moderating role.

Hypothesis 6: Higher levels of avoidant attachment to God (as measured by the Avoidance of Intimacy Scale of the Attachment to God Inventory, AGI) at time 1 will correlate with poorer mental health at time 1 and 2, however the magnitude of these relationships is expected to be weaker.

As predicted, avoidant attachment to God showed similar but weaker relationships (in comparison with anxious attachment to God) with all measures of mental health, although these relationships were still statistically significant aside from the relationship with depression and negative affect at time 2. Relationships between avoidant attachment to God and time 1 mental health variables are shown in Table 5. Table 6 shows the relationships between avoidant attachment to God at time 1 and mental health variables at time 2. At time 1, avoidant attachment to God correlated positively with depression and negative affect, and negatively with positive affect and well-being. All correlations were 'small'. That is, higher levels of avoidant attachment to God showed a weak tendency to be associated with higher levels of depression and negative affect and lower levels of positive affect and well-being. The relationships between time 1 avoidant attachment to God and time 2 mental health variables were similar but weaker. Avoidant attachment to God was negatively correlated with well-being (r = -.14), and positive affect (r = -.18), uncorrelated with negative affect and uncorrelated with depression (Table 6).

Hypothesis 7: The relationships found in (6) will continue to be statistically significant even after controlling for level of avoidant attachment to others at time 1.

This hypothesis was supported in that controlling for attachment to others did not have an effect on the relationship between avoidant attachment to God and measures of mental health. As found in answering hypothesis 6, avoidant attachment to God showed only small negative correlations with well-being and positive affect. Changes in these correlations were minimal (Table 10) and, as predicted, support that the level of avoidance of attachment to God is not moderated by the level of avoidance of attachment to others.

Table 10

Correlations and Partial Correlations for AGI-Avoidance Time 1 and Mental Health Variables Time 2

Mental health measure	Raw correlations	***Controlling for ATO-Avoidance***
CES-D	.014	-.019
p	.768	.768
PANAS-P	**-.176**	**-.142**
p	.000	.003
PANAS-N	.056	.039
p	.245	.421
Affectometer 2	**-.141**	**-.109**
p	.003	.025

Note. Bold type represents 'small' effect sizes ($.1 < r < 0.3$ or $-.3 < r < -.1$).

Hypothesis 8: Higher levels of avoidant attachment to God at time 1 will continue to predict poorer mental health at time 2 after controlling for levels of mental health at time 1. However, the relationships will be weaker.

For avoidant attachment to God, contrary to expectations, partialling out the variance accounted for by time 1 mental health resulted in loss of any relationship between avoidant attachment to God and measures of mental health (Table 11, column 2).

Table 11

Simple and Partial Correlations Between Time 1 AGI-Avoidance and Time 2 Mental Health Variables, Controlling for Stressful Events and Time 1 Mental Health and Attachment to Others

Time 2 Mental Health measure	Raw correlation with T1 AGI-Avoidance	Controlling for T1 MH	Controlling for T1 ATO	*Controlling for T1 MH and ATO*
CES-D	.014	.-.035	-.019	-.053
p	.768	.472	.691	.270
Control stress	.016	-.033	-.015	-050
p	.743	.496	.759	.305
PANAS-P	**-.176**	-.028	**-.142**	-.015
p	.000	.558	.003	.763
Control stress	**-.178**	-.029	**-.144**	-.017
p	.000	.543	.003	.722
PANAS N	.056	-.031	.039	-.029
p	.245	.524	.420	.546
Control stress	.058	-.029	.044	-.026
p	.230	.552	.366	.595
Affectometer 2	**-.141**	-.013	**-.108**	.000
p	.003	.788	.024	.997
Control stress	**-.145**	-018	**-.115**	-.008
p	.002	.710	.017	.874

Note. Bold type represents 'small' effect sizes ($.1 < r < 0.3$ or $-.3 < r < -.1$).

Hypothesis 9: The relationship between levels of avoidant attachment to God at time 1 and mental health at time 2 will increase in strength as the level of stressful events the participants have undergone in the last twelve months increases.

Contrary to predictions, the level of stressful events did not appear to moderate the relationship between avoidant attachment to God and mental health. The two small negative correlations between avoidant attachment to God and well-being and positive affect found in hypothesis 6 remained almost unchanged when the sample was analysed as a whole (Table 11, column 1), or when split into high- and low-stress groups (Table 12, column 1).

Hypothesis 10: The relationship found in (9) will continue to be significant even after controlling for time 1 mental health and attachment to others.

As in (9) stress level still did not moderate the relationship between avoidant attachment to God and the two measures of mental health it was found to be negatively correlated with (well-being and positive affect) when avoidant attachment to others and time 1 mental health was controlled for. This was the case when the sample was examined as a whole (Table 11), or when it was split in high- and low-stress groups (Table 12).

Table 12

Simple and Partial Correlations Between Time 1 AGI-Avoidance and Time 2 Mental Health Variables for the Low-Stress and High-Stress Groups

Time 2 Mental Health measure	Raw correlation with T1 AGI-Avoidance	Controlling for T1 MH	Controlling for T1 ATO	*Controlling for* MH *and* ATO
CES-D – LS	.063	.005	.027	-.005
p	.352	.937	.697	.943
CES-D – HS	-.040	-.076	-.060	-.094
p	.558	.267	.379	.171
PANAS-P – LS	**-.187**	.017	**-.153**	.029
p	.006	.800	.025	.665
PANAS-P – HS	**-.162**	-.051	**-.136**	.073
p	.017	.452	.046	.284
PANAS-N – LS	.029	**-.110**	.006	**-.115**
p	.665	.108	.933	.095
PANAS-N – HS	.073	.022	.072	.035
p	.284	.748	.294	.610
Affectometer 2 LS	**-.168**	-.014	**.147**	.066
p	.013	.832	.037	.928
Affectometer 2 HS	**-.107**	-.008	.079	.020
p	.117	.911	.251	.769

Note. Bold type represents 'small' effect sizes ($.1 < r < 0.3$ or $-.3 < r < -.1$).

Hypothesis 11: Attachment to God at time 1 will be positively correlated with attachment to God at time 2.

As predicted, the two attachment to God dimensions were stable over time. There was a high correlation between anxious attachment to God at time 1 and time 2 ($r = .77$), and similarly, a high correlation between avoidant attachment to God at time 1 and time 2 ($r = .78$), both significant at the $p < .001$ level.

Chapter Seven: Discussion

This study sought to examine the relationship between attachment to God and mental health and the change on this relationship when individuals undergo stressful life-events. Hypotheses 1 and 6 predicted that higher levels of anxious and avoidant attachment to God at time 1 would correlate with poorer mental health at time 1 and 2 and that correlations between avoidant attachment to God and mental health would be of a lower magnitude. The results strongly supported the first hypothesis and partly supported the second hypothesis. Participants who rated a higher level of anxious attachment to God tended to have higher levels of depression and negative affect, and lower levels of well-being and positive affect. Higher levels of avoidant attachment to God were similarly but weakly correlated with mental health measures at time 1. Time 2 relationships were similarly small for well-being and positive affect, but non-significant for depression and negative affect. The results are consistent with previous research on attachment theory and attachment to God that points to a strong relationship between anxious attachment to God and a weaker relationship between avoidant attachment to God and mental health (Kelley, 2003)(Belavich, 1998).

However, it should be noted that these correlations cannot be interpreted to suggest causality or provide evidence for the direction of that relationship. It is possible that attachment styles may cause different outcomes of mental health, and it is possible that a mental health may cause one's attachment to God to change (i.e. depression to change one's attachment to God style). It is also possible that mental health and attachment to

God style may be inextricably linked, mutually influencing mental health at a later time-point.

Hypotheses 2 and 7 examined whether the relationship between attachment to God and mental health could be explained by participants' attachment to others. Previous studies had shown a strong correlation between attachment to God and attachment to others (Kelley, 2003; Beck, 2004 }. In this study, there were small to moderate correlations between attachment to God and attachment to others confirming that the two constructs are closely related. Partial correlations showed that attachment to others explained very little of the relationship between attachment to God and mental health, and supported the findings of previous research which has indicated that attachment to God is a unitary construct which may have some correspondence with styles of adult attachments but cannot be explained by them (Beck & McDonald, 2004). This finding is also in a similar line with Kelley's (Kelley, 2003) finding that attachment to God is a better predictor of religious outcome that attachment to others.

Hypotheses 3 and 8 tested the possibility that levels of mental health (depression, wellbeing, positive affect and negative affect) at time 1 may be responsible for the correlation between attachment to God at time 1 and mental health at time 2. This was tested by controlling for levels of mental health at time 1. After controlling for time 1 mental health variables, the relationship between attachment to God and all time 2 mental health variables was substantially reduced. In the case of anxious attachment to God, correlations with depression were reduced from moderate to small, correlations with negative affect were reduced from moderate to small, correlations with positive

affect were reduced from small to non-existent and correlations with well-being were reduced from moderate to small. This indicates that, for example, Christians with the same levels of wellbeing at time 1 but differing levels of anxiety in their attachment to God will, on average, differ slightly in their mental health approximately three months later. Participants with higher levels of anxiety in their attachment to God will tend show lower levels of well-being in the short-term future than those with lower attachment to God anxiety (and the same well-being level) at baseline. In other words, the higher the attachment to God anxiety, the lower the well-being even when the baseline level of well-being is held constant. However, while this effect seems to be 'genuine' (not a finding simply due to probability), it is also very weak, and may not be of clinical significance. In the case of avoidant attachment to God, the relationships with time 2 mental health variables disappeared completely when the levels of time 1 mental health variables were controlled for. Thus, although avoidant attachment to God is correlated with mental health at any given time, there is no evidence that Christians with greater levels of avoidance in their attachment to God will show worse future mental health compared with those of lower attachment to God avoidance but the same baseline levels of mental health.

Hypotheses 4 and 9 examined the possibility that stressful events might moderate the relationship between attachment to God and mental health. That is, it was thought that as the level of stressful events participants experienced increased, the relationship between attachment to God at time 1 and mental health at time 2 would increase in strength. This effect was examined in two ways: by comparing raw correlations between attachment to God and mental health variables with partial correlations (controlling for level of

stressful events in order to examine its moderating effect), and by dividing the sample into low and high stress groups. It was expected that the relationship between anxious attachment to God and mental health would be stronger in the high stress group compared with the low stress group. To a large degree, hypotheses 4 and 9 were not supported by the results of correlations and partial correlations, and there is no clear evidence for a causal pathway between stressful events and the attachment to God/mental health relationship. However, one significant change in the magnitude of the correlation between attachment to God and mental health was observed in the high-stress participant group. That is, the correlation between the level of anxious attachment to God of that group and their well-being was substantially higher (large) in the high stress group compared with the low stress group (moderate).

In sum, there is no evidence that levels of stressful events moderate the relationship between attachment to God and levels of depression or positive and negative affect; however, for participants who have experienced a high level of stressful events, the higher their level of attachment to God anxiety, the more their well-being deteriorates. The positive finding with regard to well-being agrees with attachment theory, which postulates that the attachment behavioural system is activated during times of stress (Bowlby, 1973). The changes in well-being for the high-stress group indicate that stress *may* play an important role in the relationship between attachment to God and mental health, but this finding would need to be replicated, given its weak effect and the non-existent effects of stress in the relationships between attachment to God and other mental health variables in this study.

There are a number of possible explanations for the lack of strong evidence for a causal impact of attachment to God on mental health. Firstly, it may simply be that, among Christians, one's attachment to God is caused by one's level of mental health and the relationship does not go in the other direction. It is certainly possible that one's attachment to God is influenced by one's mental health; for example, Christians who become depressed may find it hard to believe that God loves them, or to sense his closeness, which may in turn lead to beliefs that he has abandoned them, and thus the development of attachment anxiety. If this were the case, a possible explanation for the findings of this study is that mental health at time 1 was responsible for time 1 attachment to God and for changes at time 2 mental health, and there was no strong causal link between time 1 attachment and Time 2 mental health. Secondly, it is possible that attachment to God and mental health are so closely related that their effects on time 2 mental health cannot be differentiated. That is, the shared variance between mental health and attachment to God at any time point is so high at time 1, that when we remove the effects of time 1 mental health from the relationship between time 1 attachment to God and time 2 mental health, we are effectively removing the variance that time 1 attachment to God shared with time 2 mental health.

This could be an indication that perhaps both attachment to God and the mental health variables measured in the study (depression, wellbeing, positive and negative affect) are in fact both part of a wider, more general construct. As has been discussed earlier in this thesis, the relationship between mind, body and soul is an intricate one and perhaps artificially imposed. Therefore, it may be difficult to extract the effects of one's relationship with God from an equation which includes mental health because the two

may be too closely linked. Finally, it may be that attachment to God *does* exert a causal impact on mental health, but that this study failed to detect this relationship because of methodological issues. For example, the three month time-frame may not have been long enough to assess changing stress levels, given that the measuring instrument used was asking participants about stressful events they experienced in the past twelve months. Alternately, although the sample in this study was large, it may not have been diverse enough to capture the range of levels of (a) mental health or (b) stressful events, necessary to detect a causal relationship of attachment to God on mental health or response to stress. Another possibility is that results may have been deflated due to a restricted range of responses in the different mental health measures, given that the sample had a fairly high mean level of well-being and positive affect, and a low mean level of depression and negative affect.

Hypotheses 5 and 10 examined whether the relationship between attachment to God at time 1 and mental health at time 2, with level of stressful events as a moderating variable, would continue to be significant even after controlling for time 1 mental health and attachment to others. Similar to hypotheses 4 and 9, the results largely failed to support these hypotheses, with the exception of the relationship between anxious attachment to God and well-being for the high-stress group, which remained significant after time 1 mental health and avoidant attachment to others were controlled for. This finding indicates that, for individuals who have higher levels of anxiety in their relationship with God, their baseline levels of mental health and style of adult attachments could not fully account for their increased susceptibility to the negative effects of high levels of stress.

Hypothesis 11 predicted that the attachment to God dimensions of avoidance and anxiety would show stability over time and this was supported by the results. This finding is consistent with previous research which shows that the attachment to God dimensions tend to be stable over time (Beck & McDonald, 2004; Kelley, 2003).

Limitations of the study and directions for future research

The quantitative nature of this study imposes an important limitation on the depth of any findings. Whilst is it important to conduct research with large samples as was the case in this study, a lot of rich information is lost when one tries to 'pigeon-hole' individual's affectional relationships . Furthermore, the use of self-report measures, while efficient, has a number of limitations, including susceptibility to social desirability biases. However, this bias should have been reduced in this study given the anonymous nature of the questionnaire.

Another limitation is that the stressful events' scale used to measure participants' stress level (PERI), assesses stressful events over 12 months. The reason for using the 12 month time-frame was because it has been found that stressful events participants report often exert an influence on participants' stress levels 12 months after the event occurs. However, it is possible that some of the stressful events experienced by the participants in this study did not cause an increased stress level in the three to five month period of the study.

An important limitation of this study is its exclusive focus on Christians. While it was not an aim of this study to generalise across to other religions, it is recognised that more research is needed in this area to determine whether similar attachment relationships are evident in other religions. Another limitation of generalisability is that the Christian population is not a homogeneous one, and research has indicated that even within the Christian religion there are denominational differences in terms of how religion is experienced and practiced, and also in terms of mental health (Eurelings-Bontekoe et al., 2005). Despite the fact that the measure of attachment to God used in this study has been shown to produce no differences between Roman Catholic and Charismatic Christians (Beck & McDonald, 2004), this evidence is not robust enough to allow conclusions about the exact differences in attachment to God and religious practice across denominations. Therefore, the fact that our sample was predominantly comprised of Pentecostal/Charismatic Christians may mean that the generalisability of these findings to other Christian denominations is limited. Future research should address the question of how Christian denominations may influence the relationship between attachment to God and mental health during stressful events.

Future research could also focus on obtaining more in-depth, qualitative information about how different types of stressful events influence the activation of the attachment to God system. Research could also explore which particular aspects of mental health are most greatly affected by stress, particularly in the group of Christians who show an anxious attachment to God. Given the stronger support for a link between anxious attachment to God and mental health, research is needed to explore how this knowledge might be applied in clinical practice. For example, such research might consider what

type of therapeutic tasks can be designed to intervene on the level of the individual's attachment to God, and the effect of those interventions on therapeutic outcome. Finally, future research is needed to examine how different religions, whose theology supports a relationship with a personal God, experience attachment with their God, and how that attachment influences their mental health during stressful events.

Strengths of the study

This study has extended the field of research on attachment to God in a number of ways. Firstly, this study used a sample of primarily New Zealand Christians, in contrast to most previous research on the relationship between religion and mental health which has drawn samples almost solely from the United States. This study has provided evidence that the inverse relationship between anxious or avoidant attachment to God and mental health holds strong in a predominantly New Zealand sample. Secondly, the sample used in this study was much larger than has ever been employed in prior research on attachment to God, increasing the generalisability of the findings. The larger sample size detects a more accurate detection of relationships among variables, especially where those relationships are relatively weak. Thirdly, a prospective design was used in this study, which has allowed stronger conclusions about the effects of stressful events on the relationship between attachment to God and mental health. Most research to date has been cross-sectional, making it impossible to determine the direction of the relationship between attachment to God and mental health. Finally, whilst there has been one prospective study on the buffering role of certain aspects of individuals' relationship

with God on mental health during stressful events (Maton, 1989), that study assessed the quality of people's relationship with God using only three questions. By drawing on attachment theory, the present study has used a much more sound theoretical basis of operationalising respondents' relationship with God, as there is now sufficient empirical evidence for the robustness of the attachment to God construct.

Conclusion

This study has provided strong evidence for the relationship between attachment to God and mental health in a Christian sample. It was hypothesized that higher levels of anxious and avoidant attachment to God would be associated with poorer mental health, and that these findings could not be fully accounted for by people's adult attachment styles or initial levels of mental health. It was also hypothesized that the level of stressful events people undergo influences the relationship between their attachment to God and mental health; that is, the relationship between attachment to God and mental health would be stronger for those undergoing a higher degree of stress. It appears that there is a strong association between anxious attachment to God and mental health. There also appears to be an association between avoidant attachment to God and mental health variables, but this association is clearly weaker than the relationship between anxious attachment to God and mental health. The study also indicated that respondents' attachment to God tended to remain stable over the three to five month period of the study.

Whilst the way people attach with adult others cannot account for these relationships, it is more difficult to delineate the role of one's initial level of mental health in the interplay between attachment to God and future mental health. It seems that the concepts of attachment to God and mental health are so closely related that one cannot easily separate their effects on a person's mental health at a later time point. There is no evidence for a moderating role of stress in the relationship between attachment to God and depression, positive affect and negative affect. However, there is evidence that level of stressful events may moderate the relationship between anxious attachment to God and well-being.

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APPENDIX A: INFORMATION SHEET TO ACCOMPANY PAPER COPY OF QUESTIONNAIRE

Christians' Well-being and Relationship with God
Information Sheet

You are invited to participate in this research project being undertaken by Sarah Calvert and Yolanda Duncan from Massey University.

This study aims to examine Christians' wellbeing and their relationships with God. Your participation will help counselors to improve their work with Christian clients. The questionnaire takes approximately 15 minutes to complete.

- **Your responses are completely anonymous**
- **Your participation is entirely voluntary**
- **You may choose not to answer any questions that you cause discomfort**
- **Completion and return of the questionnaire implies consent**
- **Anyone who identifies as a Christian and is 16 years or older may take part**

It would be a great help to us if you could complete a similar questionnaire in 3

months time. This is an important part of the research we are doing, as it will help us to explore potential changes that occur over time. If you are willing to do so, please complete the address sheet attached, and return it in the second envelope provided. Using a separate envelope means that your contact details will not be linked with your responses. In this way we can send you a second copy of the questionnaire in 3 months, while still protecting the anonymity of your responses.

No identifying information will be gathered, and only summary data will be used for research projects and publications. Questionnaires will be stored under locked conditions in the School of Psychology for five years and then will be destroyed.

If you would like to receive a summary of the results of the study, please send an e-mail to: yduncan@paradise.net.nz, or sarah.calvert.2@uni.massey.ac.nz, with "Results request" in the subject line. I will e-mail a summary to you when the study is complete.

If you experience discomfort or distress as a result of completing the questionnaire, please contact your pastor. If you have any concerns regarding this research, please contact the Supervisor: Dr Paul Merrick, (09) 414 0800 x 41231, P.L.Merrick@massey.ac.nz.

Thank you for your contribution to this research,
your responses are greatly valued.

This project has been reviewed and approved by the Massey University Human Ethics Committee, ALB application 06/ 017 . If you have any concerns about the conduct of this research, please contact Associate Professor Kerry Chamberlain, Chair, Massey University Campus Human Ethics Committee: Albany, telephone 09 414 0800 x 41226, e-mail humanethicsalb@massey.ac.nz.

APPENDIX B: QUESTIONNAIRE TIME 1

MASSEY UNIVERSITY SCHOOL OF PSYCHOLOGY

Thank you for participating in this study. Your honesty in answering the following questions about yourself is extremely important. All of your responses are completely anonymous.

Section 1

The following statements concern your feelings and experiences of your current relationship with God. Please indicate the degree to which you agree with the following statements, using the scale below:

SA	A	N	D	SD
Strongly agree	**Agree**	**Neutral/mixed**	**Disagree**	**Strongly disagree**

1.	I crave reassurance from God that God loves me	SA	A	N	D	SD
2.	I worry a lot about damaging my relationship with God	SA	A	N	D	SD
3.	Even if I fail, I never question that God is pleased with me	SA	A	N	D	SD
4.	My prayers to God are very emotional	SA	A	N	D	SD
5.	I often feel angry with God for not responding to me when I want	SA	A	N	D	SD
6.	God seems impersonal to me	SA	A	N	D	SD
7.	God sometimes seems responsive to my needs, but sometimes not	SA	A	N	D	SD
8.	I am totally dependent upon God for everything in my life	SA	A	N	D	SD
9.	My experiences with God are very intimate and emotional	SA	A	N	D	SD
10.	Without God I couldn't function at all	SA	A	N	D	SD
11.	I believe people should not depend on God for things they should do for themselves	SA	A	N	D	SD
12.	It is uncommon for me to cry when sharing with God	SA	A	N	D	SD
13.	If I can't see God working in my life, I get upset or angry	SA	A	N	D	SD
14.	I prefer not to depend too much on God	SA	A	N	D	SD
15.	Almost daily I feel that my relationship with God goes back and forth from "hot" to "cold"	SA	A	N	D	SD
16.	Daily I discuss all of my problems and concerns with God	SA	A	N	D	SD
17.	I am jealous when others feel God's presence when I cannot	SA	A	N	D	SD
18.	I am uncomfortable allowing God to control every aspect of my life	SA	A	N	D	SD
19.	God's reactions to me seem to be inconsistent	SA	A	N	D	SD
20.	I am jealous at how God seems to care more for others than for me	SA	A	N	D	SD
21.	I worry a lot about my relationship with God	SA	A	N	D	SD
22.	I am uncomfortable being emotional in my communication with God	SA	A	N	D	SD
23.	God sometimes seems very warm and other times very cold to me	SA	A	N	D	SD
24.	I let God make most of the decisions in my life	SA	A	N	D	SD
25.	I would feel upset if I sensed that God was far from me	SA	A	N	D	SD
26.	I am jealous at how close some people are to God	SA	A	N	D	SD

27. I often worry about whether God is pleased with me	SA	A	N	D	SD
28. Sometimes I feel that God loves others more than me	SA	A	N	D	SD
29. God seems to have little or no interest in my personal problems	SA	A	N	D	SD
30. My prayers to God are often matter-of-fact and not very personal	SA	A	N	D	SD
31. I just don't feel a deep need to be close to God	SA	A	N	D	SD
32. God seems to have little or no interest in my personal affairs	SA	A	N	D	SD
33. I get upset when I feel God helps others, but forgets about me	SA	A	N	D	SD
34. I am uncomfortable with emotional displays of affection to God	SA	A	N	D	SD
35. God knows when I need support	SA	A	N	D	SD
36. I fear God does not accept me when I do wrong	SA	A	N	D	SD
37. I have a warm relationship with God	SA	A	N	D	SD

Section 2

Below is a list of statements dealing with how you might have felt about your life over the past few weeks. Please describe your honest feelings as best as you can. Indicate how often you have felt this way over the past few weeks, using this scale:

1	2	3	4	5
Not at all	**Occasionally**	**Some of the time**	**Often**	**All the time**

1. My life is on the right track	1	2	3	4	5
2. I seem to be left alone when I don't want to be	1	2	3	4	5
3. I feel I can do whatever I want to	1	2	3	4	5
4. I think clearly and creatively	1	2	3	4	5
5. I feel like a failure	1	2	3	4	5
6. Nothing seems very much fun anymore	1	2	3	4	5
7. I like myself	1	2	3	4	5
8. I can't be bothered doing anything	1	2	3	4	5
9. I feel close to people around me	1	2	3	4	5
10. I feel as though the best years of my life are over	1	2	3	4	5
11. My future looks good	1	2	3	4	5
12. I have lost interest in other people and don't care about them	1	2	3	4	5
13. I have energy to spare	1	2	3	4	5
14. I smile and laugh a lot	1	2	3	4	5
15. I wish I could change some parts of my life	1	2	3	4	5
16. My thoughts go around in useless circles	1	2	3	4	5
17. I can handle any problems that come up	1	2	3	4	5
18. My life seems stuck in a rut	1	2	3	4	5
19. I feel loved and trusted	1	2	3	4	5
20. I feel there must be something wrong with me	1	2	3	4	5

Section 3

The following words describe different feelings and emotions. Read each item then circle the appropriate number next to each word. Indicate to what extent you have felt this way during the past few weeks.

1	2	3	4	5
Very slightly (or not at all)	**A little**	**Moderately**	**Quite a bit**	**Extremely**

Interested	1	2	3	4	5	Alert	1	2	3	4	5
Distressed	1	2	3	4	5	Ashamed	1	2	3	4	5
Excited	1	2	3	4	5	Inspired	1	2	3	4	5
Upset	1	2	3	4	5	Nervous	1	2	3	4	5
Strong	1	2	3	4	5	Determined	1	2	3	4	5
Guilty	1	2	3	4	5	Attentive	1	2	3	4	5
Scared	1	2	3	4	5	Jittery	1	2	3	4	5
Hostile	1	2	3	4	5	Active	1	2	3	4	5
Enthusiastic	1	2	3	4	5	Afraid	1	2	3	4	5
Irritable	1	2	3	4	5						

Section 4

Following are four general relationship styles that people often report. Please rate each relationship style to indicate how well or poorly it corresponds to your general relationship style. Use the rating scale below.

1	2	3	4	5	6	7
Disagree Strongly			**Neutral/ Mixed**			**Agree Strongly**

A. It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me	1	2	3	4	5	6	7
B. I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.	1	2	3	4	5	6	7
C. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.	1	2	3	4	5	6	7
D. I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.	1	2	3	4	5	6	7

Section 5

To what extent is your current relationship with God a source of: (circle the answer that best applies)

1.	Distress/anxiety:	Not at all	Somewhat	Quite a bit	A great deal
2.	Happiness:	Not at all	Somewhat	Quite a bit	A great deal
3.	Comfort/peace:	Not at all	Somewhat	Quite a bit	A great deal
4.	Sadness:	Not at all	Somewhat	Quite a bit	A great deal

Section 6

Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way during the past week.

1	2	3	4
Rarely or none of the time (less than 1 day)	**Some or a little of the time (1-2 days)**	**Occasionally or a moderate amount of time (3-4 days)**	**Most or all of the time (5-7 days)**

1.	I was bothered by things that usually don't bother me	1	2	3	4
2.	I did not feel like eating; my appetite was poor	1	2	3	4
3.	I felt that I could not shake off the blues even with help from my family or friends	1	2	3	4
4.	I felt I was just as good as other people	1	2	3	4
5.	I had trouble keeping my mind on what I was doing	1	2	3	4
6.	I felt depressed	1	2	3	4
7.	I felt that everything I did was an effort	1	2	3	4
8.	I felt hopeful about the future	1	2	3	4
9.	I thought my life had been a failure	1	2	3	4
10.	I felt fearful	1	2	3	4
11.	My sleep was restless	1	2	3	4
12.	I was happy	1	2	3	4
13.	I talked less than usual	1	2	3	4
14.	I felt lonely	1	2	3	4
15.	People were unfriendly	1	2	3	4
16.	I enjoyed life	1	2	3	4
17.	I had crying spells	1	2	3	4
18.	I felt sad	1	2	3	4
19.	I felt that people dislike me	1	2	3	4
20.	I could not get "going"	1	2	3	4

Section 7

Please read each of the following statements and indicate how true each statement is for you.

1	2	3	4	5
Not at all true of me	**Somewhat true of me**	**Moderately true of me**	**Mostly true of me**	**Totally true of me**

1.	I often read books and magazines about my faith	1	2	3	4	5
2.	I make financial contributions to my religious organization	1	2	3	4	5
3.	I spend time trying to grow in understanding of my faith	1	2	3	4	5
4.	Religion is especially important to me because it answers many questions about the meaning of life	1	2	3	4	5
5.	My religious beliefs lie behind my whole approach to life	1	2	3	4	5
6.	I enjoy spending time with others of my religious affiliation	1	2	3	4	5
7.	Religious beliefs influence all my dealings in life	1	2	3	4	5
8.	It is important to me to spend periods of time in private religious thought and reflection	1	2	3	4	5
9.	I enjoy working in the activities of my religious affiliation	1	2	3	4	5
10.	I keep well informed about my local religious group and have some influence in its decisions	1	2	3	4	5

Section 8

Lastly, we would appreciate it if you could provide us with the following details about yourself:

Gender (circle): Male Female

Date of birth: ___ / ___ / ___

Religious affiliation (please tick the **one** affiliation that best applies):

☐ Catholic ☐ Anglican ☐ Presbyterian ☐ Baptist

☐ Methodist ☐ Pentecostal ☐ Other (specify)_____

If you are willing for us to send you a similar questionnaire in 3 months time, please also answer the following two questions. These questions will be asked again on the second questionnaire so that we can link your two questionnaires without identifying you (to protect your anonymity).

Father's first name: _____

Mother's maiden name (surname before she was married): _____

THANK YOU FOR YOUR TIME!

I am extremely grateful for your contribution to this research and hope that you will reap some of the benefits of it through the information we gain. **THANK YOU!**

APPENDIX C: REQUEST FOR CONTACT DETAILS, TO ACCOMPANY PAPER VERSION OF QUESTIONNAIRE

If you are willing for us to contact you in three months time with a similar survey, please complete the following.

Name: _____

Address: _____
_____
_____

E-mail: (this will be used to contact you only if your postal address changes):

_____

Please send this form in the second prepaid, return-addressed envelope. Keep it separate from your questionnaire, in order to protect the anonymity of your responses.

THANK YOU FOR YOUR ASSISTANCE!

APPENDIX D: REQUEST FOR CONTACT DETAILS, TO ACCOMPANY WEB VERSION OF QUESTIONNAIRE

THANK YOU FOR TAKING PART IN THIS RESEARCH!

It would be a great help to us if you could complete a similar questionnaire in 3 months time. If you are willing to do so, please complete the following details, and we will post a copy of the second questionnaire to you in three months.

These details cannot be linked to your survey, so completing the following will <u>not</u> affect the anonymity of your responses.

Name: _____

Address: _____

_____

_____

E-mail: _____

APPENDIX E: QUESTIONNAIRE TIME 2
MASSEY UNIVERSITY SCHOOL OF PSYCHOLOGY

Thank you for participating in this study. Your honesty in answering the following questions about yourself is extremely important. All of your responses are completely anonymous.

Section 1

The following statements concern your feelings and experiences of your current relationship with God. Please indicate the degree to which you agree with the following statements, using the scale below:

SA	A	N	D	SD
Strongly agree	Agree	Neutral/mixed	Disagree	Strongly disagree

1.	I crave reassurance from God that God loves me	SA	A	N	D	SD
2.	I worry a lot about damaging my relationship with God	SA	A	N	D	SD
3.	Even if I fail, I never question that God is pleased with me	SA	A	N	D	SD
4.	My prayers to God are very emotional	SA	A	N	D	SD
5.	I often feel angry with God for not responding to me when I want	SA	A	N	D	SD
6.	God seems impersonal to me	SA	A	N	D	SD
7.	God sometimes seems responsive to my needs, but sometimes not	SA	A	N	D	SD
8.	I am totally dependent upon God for everything in my life	SA	A	N	D	SD
9.	My experiences with God are very intimate and emotional	SA	A	N	D	SD
10.	Without God I couldn't function at all	SA	A	N	D	SD
11.	I believe people should not depend on God for things they should do for themselves	SA	A	N	D	SD
12.	It is uncommon for me to cry when sharing with God	SA	A	N	D	SD
13.	If I can't see God working in my life, I get upset or angry	SA	A	N	D	SD
14.	I prefer not to depend too much on God	SA	A	N	D	SD
15.	Almost daily I feel that my relationship with God goes back and forth from "hot" to "cold"	SA	A	N	D	SD
16.	Daily I discuss all of my problems and concerns with God	SA	A	N	D	SD
17.	I am jealous when others feel God's presence when I cannot	SA	A	N	D	SD
18.	I am uncomfortable allowing God to control every aspect of my life	SA	A	N	D	SD
19.	God's reactions to me seem to be inconsistent	SA	A	N	D	SD
20.	I am jealous at how God seems to care more for others than for me	SA	A	N	D	SD
21.	I worry a lot about my relationship with God	SA	A	N	D	SD
22.	I am uncomfortable being emotional in my communication with God	SA	A	N	D	SD
23.	God sometimes seems very warm and other times very cold to me	SA	A	N	D	SD
24.	I let God make most of the decisions in my life	SA	A	N	D	SD
25.	I am jealous at how close some people are to God	SA	A	N	D	SD
26.	I often worry about whether God is pleased with me	SA	A	N	D	SD
27.	Sometimes I feel that God loves others more than me	SA	A	N	D	SD
28.	God seems to have little or no interest in my personal problems	SA	A	N	D	SD

Continued...

SA	A	N	D	SD
Strongly agree	**Agree**	**Neutral/mixed**	**Disagree**	**Strongly disagree**

29. My prayers to God are often matter-of-fact and not very personal	SA	A	N	D	SD
30. I just don't feel a deep need to be close to God	SA	A	N	D	SD
31. God seems to have little or no interest in my personal affairs	SA	A	N	D	SD
32. I get upset when I feel God helps others, but forgets about me	SA	A	N	D	SD
33. I am uncomfortable with emotional displays of affection to God	SA	A	N	D	SD
34. God knows when I need support	SA	A	N	D	SD
35. I fear God does not accept me when I do wrong	SA	A	N	D	SD
36. I have a warm relationship with God	SA	A	N	D	SD

Section 2

Below is a list of statements dealing with how you might have felt about your life over the past few weeks. Please describe your honest feelings as best as you can. Indicate how often you have felt this way over the past few weeks, using this scale:

1	2	3	4	5
Not at all	**Occasionally**	**Some of the time**	**Often**	**All the time**

1. My life is on the right track	1	2	3	4	5
2. I seem to be left alone when I don't want to be	1	2	3	4	5
3. I feel I can do whatever I want to	1	2	3	4	5
4. I think clearly and creatively	1	2	3	4	5
5. I feel like a failure	1	2	3	4	5
6. Nothing seems very much fun anymore	1	2	3	4	5
7. I like myself	1	2	3	4	5
8. I can't be bothered doing anything	1	2	3	4	5
9. I feel close to people around me	1	2	3	4	5
10. I feel as though the best years of my life are over	1	2	3	4	5
11. My future looks good	1	2	3	4	5
12. I have lost interest in other people and don't care about them	1	2	3	4	5
13. I have energy to spare	1	2	3	4	5
14. I smile and laugh a lot	1	2	3	4	5
15. I wish I could change some parts of my life	1	2	3	4	5
16. My thoughts go around in useless circles	1	2	3	4	5
17. I can handle any problems that come up	1	2	3	4	5
18. My life seems stuck in a rut	1	2	3	4	5
19. I feel loved and trusted	1	2	3	4	5
20. I feel there must be something wrong with me	1	2	3	4	5

Section 3

The following words describe different feelings and emotions. Read each item then circle the appropriate number next to each word. Indicate to what extent you have felt this way during the past few weeks.

1	2	3	4	5
Very slightly/not at all	**A little**	**Moderately**	**Quite a bit**	**Extremely**

Interested	1	2	3	4	5	Alert	1	2	3	4	5
Distressed	1	2	3	4	5	Ashamed	1	2	3	4	5
Excited	1	2	3	4	5	Inspired	1	2	3	4	5
Upset	1	2	3	4	5	Nervous	1	2	3	4	5
Strong	1	2	3	4	5	Determined	1	2	3	4	5
Guilty	1	2	3	4	5	Attentive	1	2	3	4	5
Scared	1	2	3	4	5	Jittery	1	2	3	4	5
Hostile	1	2	3	4	5	Active	1	2	3	4	5
Enthusiastic	1	2	3	4	5	Afraid	1	2	3	4	5
Irritable	1	2	3	4	5						

Section 4

The following sentences refer to your preferences for counselling. It does not matter if you have never been in counselling before and would not consider seeing a counsellor; please just imagine what your preferences might be if you were to see a counsellor. If you are in counselling, consider these statements as if you were going to choose a new counsellor in the future.

SA	A	N	D	SD
Strongly agree	**Agree**	**Neutral/mixed**	**Disagree**	**Strongly disagree**

If I were to see a counsellor…

1.	I would want a counsellor with a strong Christian faith	SA	A	N	D	SD
2.	I would feel comfortable discussing my relationship with God in counselling	SA	A	N	D	SD
3.	I would prefer to see a secular counsellor	SA	A	N	D	SD
4.	It would be important to me that my relationship with God was strengthened through counselling	SA	A	N	D	SD
5.	I would prefer it if my relationship with God was left out of counselling	SA	A	N	D	SD

Section 5

Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way during the past week.

1	2	3	4
Rarely or none of the time (less than 1 day)	**Some or a little of the time (1-2 days)**	**Occasionally or a moderate amount of time (3-4 days)**	**Most or all of the time (5-7 days)**

1.	I was bothered by things that usually don't bother me	1	2	3	4
2.	I did not feel like eating; my appetite was poor	1	2	3	4
3.	I felt that I could not shake off the blues even with help from my family or friends	1	2	3	4
4.	I felt I was just as good as other people	1	2	3	4
5.	I had trouble keeping my mind on what I was doing	1	2	3	4
6.	I felt depressed	1	2	3	4
7.	I felt that everything I did was an effort	1	2	3	4
8.	I felt hopeful about the future	1	2	3	4
9.	I thought my life had been a failure	1	2	3	4
10.	I felt fearful	1	2	3	4
11.	My sleep was restless	1	2	3	4
12.	I was happy	1	2	3	4
13.	I talked less than usual	1	2	3	4
14.	I felt lonely	1	2	3	4
15.	People were unfriendly	1	2	3	4
16.	I enjoyed life	1	2	3	4
17.	I had crying spells	1	2	3	4
18.	I felt sad	1	2	3	4
19.	I felt that people dislike me	1	2	3	4
20.	I could not get "going"	1	2	3	4

Section 6

Listed below are a number of negative events which sometimes bring about changes in the lives of those who experience them. Please place a cross in the boxes beside all of the events you have experienced over the **past 12 months.**

Housing and Finance

- ☐ Moved to a worse residence or neighborhood
- ☐ Foreclosure of a mortgage or loan
- ☐ Repossession of a car, furniture or other items bought on installment plan
- ☐ Took a cut in wage/salary (without a demotion) or did not get expected wage/salary increase
- ☐ Suffered a financial loss or loss of property not related to work
- ☐ Went on welfare
- ☐ Lost a home through fire, flood or other disaster

Work/School/Training program

- ☐ Had problems in school/training program
- ☐ Failed school/training program
- ☐ Changed jobs for a worse one
- ☐ Had trouble with a boss
- ☐ Demoted at work, or conditions at work got worse
- ☐ Laid-off or fired
- ☐ Suffered a business loss or failure

Accidents, injuries, illness

- ☐ Accident in which there were no injuries
- ☐ Physical illness
- ☐ Injury
- ☐ Unable to get treatment for illness/injury
- ☐ Assaulted or robbed

Legal

- ☐ Involved in a law suit or court case, or accused of a crime
- ☐ Arrested or convicted of a crime
- ☐ Lost drivers license

Relationships

- ☐ Relations with spouse/partner changed for the worse, without separation or divorce
- ☐ Separated from spouse/partner
- ☐ Divorce
- ☐ Marital/partner infidelity
- ☐ Serious family argument with someone other than spouse/partner
- ☐ Trouble with in-laws
- ☐ Someone stayed on in the household after they were expected to leave
- ☐ Miscarriage or stillbirth
- ☐ Abortion
- ☐ Found out you cannot have children
- ☐ Spouse/partner died
- ☐ Child died
- ☐ Family member other than spouse/partner/ child died
- ☐ Close friend died
- ☐ Pet died
- ☐ Engagement was broken
- ☐ Broke up with a friend

Other

- ☐ Was not able to take a planned vacation
- ☐ Dropped a hobby/sport/recreational activity
- ☐ Other (specify) _____
- ☐ Other (specify) _____
- ☐ Other (specify) _____

Section 7

The following items deal with different ways people try to cope with negative events in their life. Think about the most negative events you have faced over the past year and indicate how often you did each of the following, during that time. Don't answer on the basis of whether it worked or not – just how often you did it. Circle the answer that best applies to you

1	2	3	4
Not at all	**Somewhat**	**Quite a bit**	**A great deal**

1.	Looked for a stronger connection with God	1	2	3	4
2.	Sought God's love and care	1	2	3	4
3.	Wondered whether God had abandoned me	1	2	3	4
4.	Sought help from God in letting go of my negative feelings	1	2	3	4
5.	Felt punished by God for my lack of devotion	1	2	3	4
6.	Tried to put my plans into action together with God	1	2	3	4
7.	Wondered whether my church had abandoned me	1	2	3	4
8.	Decided the devil made this happen	1	2	3	4
9.	Tried to see how God might be trying to strengthen me in this situation	1	2	3	4
10.	Questioned God's love for me	1	2	3	4
11.	Asked forgiveness for my sins	1	2	3	4
12.	Focused on God to stop worrying about my problems	1	2	3	4
13.	Wondered what I did for God to punish me	1	2	3	4
14.	Questioned the power of God	1	2	3	4

Have you received any kind of counselling/therapy over the past 12 months? (circle) Yes No

If yes, did you receive *Christian* counselling? Yes No

*Lastly, we would appreciate it if you could provide us with the following details about yourself. These details are very important as they allow us to link your second survey to your first survey (**without identifying who you are**).*

Gender (circle): Male Female

Date of birth: ___ / ___ / ___

Father's first name: _____

Mother's maiden name (surname before she was married): _____

THANK YOU FOR YOUR TIME!

I am extremely grateful for your contribution to this research and hope that you will reap some of the benefits of it through the information we gain. **THANK YOU!**