**UNIVERSITY OF SOUTHAMPTON**

FACULTY OF MEDICINE, HEALTH AND LIFE SCIENCES

School of Psychology

# Role of Religious Coping and Personal Meaning in the Mental Health of Iranian Disabled War Veterans

by

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ABSTRACT

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# ROLE OF RELIGIOUS COPING AND PERSONAL MEANING IN THE MENTAL HEALTH OF IRANIAN DISABLED WAR VETERANS

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A substantial body of mainly US research has suggested the mental health benefits of religiosity and spirituality and that this relationship is mediated by extrinsic factors such as health behaviours, social support and sense of personal meaning or coherence. However, as Pargament argues, it is also possible that religion has unique benefits through providing contact with the sacred. Such benefits can be expected to be more evident in a religious society such as Iran. In order to assess religious coping in Iran, a religious coping scale modelled on Pargament's scale was developed specifically for Iranian Muslims and tested in a sample of university students (N = 185). Similarly, the validity and reliability of Reker's Personal Meaning scale was tested on a sample of university students (N = 136) and school teachers (N = 162). These studies also demonstrated the associations with well-being variables of both religious coping and personal meaning. To investigate the relative efficacy of religious coping and personal meaning in dealing with physical disability and traumatic experiences, a sample of disabled war veterans of the Iran-Iraq was studied (N = 78). Many Iranian veterans perceived the war as a sacred defence. It was expected that such sanctification would have helped protect them from mental health problems and distress. Results showed that religious coping had a significant contribution to mental health of veterans beyond and above other predictor variables such as physical function, social support and personal meaning. These predictor variables did not explain the relationship between religious coping and mental health. This research also indicated that participants used positive religious coping strategies more frequently than negative religious coping strategies in coping with their physical disability problems and traumatic experiences. The limitations of this study are discussed and suggestions made for the sanctification hypothesis in other samples.

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ABBREVIATIONS

CES-D.....Centre for Epidemiologic Studies Depression Scale

C/R.....Choice/Responsibility

CO.....Coherence

DA..... .....Death Acceptance

DAP-R.....Death Attitude Profile-Revised

DSMIV..... ..... Diagnostic and Statistical Manual of Mental Disorder, Fourth Edition, Text Revision

ET.....Existential Transcendence

EV.....Existential Vacuum

FR.....Framework

FUL.....Fulfillment

GHQ... .....General Health Questionnaire

GS..... .....Goal Seeking

HADS.....Hospital Anxiety and Depression Scale

IES-R.....Impact of Event Scale-Revised

IR.....Intrinsic Religiosity

LAP-R.....Life Attitude Profile-Revised

LRI.....Life Regard Index

MOSSSS.....Medical Outcomes Study Social Support Survey

NORA.....Non-organizational Religious Activity

ORA.....Organizational Religious Activity

PANAS.....Positive and Negative Affective Schedule

PF.....Physical Functioning

PIL.....Purpose in Life

PMI.....Personal Meaning index

PU.....Purpose

SDS.....Self-Determination Scale

SOMP-R.....Source of Meaning Profile-Revised

# Chapter One: Introduction

## 1.1 Religion, Health and Well-Being

Religion and spirituality have an important role in the daily life of Iranian people. For example in a large survey on attitude on religiosity 86% of young Iranian people stated that religion is 'extremely important' for them and 66% said that they observed their daily prayer often (National Youth Organization, 2005). Therefore, it may be expected that those Iranian people who rely more on religion are more likely to use religious and spiritual beliefs as a way of coping and adjusting to their health problems.

A consensus seems to be emerging that certain forms of religiosity, particularly intrinsic religiosity consistency, predict better mental health (Koenig et al., 2001; Leowenthal et al., 2001; McIntosh et al. 1993). Scientific studies over the last four decades have examined the role of both public and private religion and spirituality on health. A growing body of research has been conducted on the relationships between religion or spirituality and health. Most of these studies have found beneficial effects of religiosity and spirituality on physical and psychological well-being (see Koenig et al., 2001; Pargament, 1997; Park & Cohen, 1993). These studies have examined the effects of spirituality and religiosity both on physical and mental health. Many studies have also suggested that religion affects the course and outcomes of illness including recovery from acute illnesses (Oxman et al., 1995 ) and also the processes of physical functions including, immune and neuroendocrine function, and susceptibility to infection (see Koenig et al., 2001 for review). Some studies have even found significant relationships between religiosity and the onset of many physical conditions, including cardiovascular disease (Oman et al., 2002), hypertension (Koenig et al, 1998), pain (Palmer et al., 2004, disability (Idler & Kasl, 1997), and cancer (Gall, 2004).

A substantial number of studies have found a significant association between religiosity or spirituality and mortality. Most of these studies have shown that religiosity is associated with longevity (e.g., Clark et al., 1999). Research has documented this relationship for mortality and for deaths from cardiovascular disease and cancer. Multiple dimensions of religiosity are associated with longevity, but attendance at religious services was the most strongly related to longevity (see George et al., 2000).

Research also suggests that religiosity is associated with mental health. It is believed that religious involvement is more strongly related to mental health than to physical illness and mortality (e.g., George et al., 2000). Researchers have found a significant relationship between religion or spirituality and reduced likelihood of depression (Loewenthal et al., 2001; Wink et al., 2005), anxiety (Koenig, 2001), PTSD (Ai et al., 2005) alcohol and drug abuse (O'Conner et al., 2005). Furthermore, a number of longitudinal studies have also found that religion has a beneficial effect on mental health (e.g., Musick & Strulowitz, 1989).

Other researchers have attempted to identify the factors that may mediate the relationships between religiousness and measures of physical and mental health. Social support and coherence, in particular, have received considerable attention for their potential mediating role in the association between religion and health. It is believed that religion may exert its effects on health indirectly by enhancing social support and providing a sense of meaning that are, in turn, directly related to better health. However, these studies have not been able to fully account for the religion/health connection (see Funder, 2002; Worthington et al., 1996).

Of the mechanisms proposed to explain the links between religion and health, the coherence hypothesis has received the most support (e.g., George et al., 2000). Although the number of studies testing this hypothesis is small, they consistently report that a sense of meaningfulness and coherence explain a significant proportion of the relationship between religious involvement and health (e.g., Antonovsky, 1987; Chamberlain & Zika, 1988; Fry, 2000; Maltby & Day, 2003; Zuckerman et al., 1984). For example, Emmons (2000) postulated that the association between intrinsic religiousness and mental health may be mediated by individuals' personal goals (i.e., the religious/spiritual content of personal strivings, the degree to which strivings are sanctified by religious/spiritual motives such as sense of coherence). McIntosh et al., (1993) found that perceived importance of religion had an indirect effect on long-term well-being through its relations with finding meaning in and cognitive processing of the loss.

Another important mechanism that researchers have hypothesized as mediating the relationship between religiosity and health is the social support of the religious

community. Durkheim (1952) suggested that the higher proportion of suicide among Protestants compared to Catholics was because the Protestant church did not have the same degree of social integration. Researchers have found that social support mediated the relationship between religious coping and adjustment to stressful episodes (see Park & Cohen, 1993 for review).

George et al., (2000) reviewed an extensive body of research on the links between religion and health. They found only mixed effects for the mediating effects of health practices, coherence, social support, psychosocial resources, and belief structures on health, although coherence had the most influence on the variance they studied. They concluded that these factors will prove to be insufficient to explain fully the pathways by which religious involvement promotes health and longevity.

Several studies have investigated the effects of potential mediation factors on the relationship between religiosity/spirituality and psychological well-being. These studies have suggested that religious coping contributed to the mental health of people with stressful conditions to a greater extent than other variables such as social support, cognitive restructuring, internal control, and chance control (e.g., Fry, 2000; Pargament et al., 2000; Tix & Frazier, 1998).

Tix and Frazier (1998) in a study on individuals facing the stresses of transplant surgery examined the role of religious coping alongside the potential mediation of various factors including cognitive restructuring, social support, and perceived control several months after surgery. The results of their research indicated that religious coping added a unique contribution to the prediction of adjustment to stressful life events that could not be accounted for by cognitive restructuring, social support and perceived control. Moreover, McCullough et al., (2000) examined whether potential mediating and variables could explain the relationship between religiousness and mortality. They considered the effects of health status, social support, and socio-demographic variables. Their studies demonstrated a smaller, but still substantial, association between religious involvement and mortality.

Pargament et al., (2005) also argues that, although some of the associations between religiousness and health may be reduced to more basic social processes (e.g.,

social support), there appears to be something unique about religion that remains after other explanations have been examined. According to him, religious coping cannot be easily reduced to other psychological and social forms of coping. Religious coping seems to contribute something special to the prediction of adjustment to critical life events. Pargament argues that the most important explanation for the relationship between religion and health might be that religiousness is a significant dimension in and of itself. Yet, it is also possible that there are other potential mediators that have not yet been measured. It remains to be determined whether more accurate measurement of potential mediators of the religion and health connection may erase the association. Pargament et al., (1998, 2000) in several studies on different sample groups indicated that religious coping explained a significant part of the variance in mental health.

Pargament has introduced the concept of sanctification into the field of religious coping. It is hypothesized that sanctification can have a major influence on well-being outcomes. Mahoney et al., (2003) hypothesized that people will treat sacred objects differently than those that are not perceived as sacred; that is, they are more likely to attempt to preserve and protect objects that have been sanctified. Pargament et al., (2005) also emphasize that beliefs and practices oriented to the sacred seem to have a special ability to provide ultimate meaning. Several studies have found an association between the perceptions of sacred and psychological well-being (e.g., Mahoney et al., 2003).

### 1.2 Religion and Personal Meaning in a Muslim Context

Nearly all of these studies have been conducted in western countries including the USA. Very little is known about the role of religious beliefs and practice in coping with difficult situations in a Muslim context. It can be hypothesized that personal meaning constructs play a larger role in a secular culture whereas spiritual/religious people rely more on faith than a sense of personal meaning. For example, when people are asked about the meaning of life, they would be more likely to mention trust in God and especially fulfilling God's will (see Mehta, 1997).

So far most studies on personal meaning have been conducted in western societies of a predominantly Christian background (apart from Israel) but where the

predominant values are liberal and secular. The concept of personal meaning itself and its measurement reflects these values. Research within these societies has shown that having a sense of meaning has an important impact on physical and psychological well-being as a coping mechanism particularly when individuals suffer and face challenging life events, such as cancer and disability (Fry, 2000; Park & Folkman, 1997; Reker, 1988). Meaning-based coping has been conceptualized as a mediating variable in studies of health-related quality of life. There are a number of studies which have considered personal meaning as a potent predictor of psychological well-being (e.g., Compton, 2000; Fry, 2000; Vickberg et al., 2001). Vickberg et al., (2000) in a study showed that personal meaning moderated the relationship between the presence of intrusive thoughts and psychological distress among patients with breast cancer.

However, in a religious society where meaning is consistently, not only in restricted situations, referred back to religious principles, we may expect different results. The personal meaning concepts have become more related to philosophical and humanistic systems rather than religious traditions. In a traditional religious society the personal meaning construct may not be an independent mediating influence on psychological well-being and mental health of individuals experiencing suffering. More important may be strength of religious faith.

There is a need to understand what potentials factors may influence the coping processes of Muslims facing stressful situations. Given the potential impact of religion and spirituality on the daily life of a Muslim, it is disappointing that very few studies have been carried out in this field among Muslim people.

To investigate this subject, it is important to identify a group of people within such a religious society who have experienced major suffering in their lives. Disabled war veterans from the Iran-Iraq war provide a ready sample which meets the relevant criteria. The Iran-Iraq war was unique from other recent conflicts in terms of its religious motivation and sanctification given to the conflict by Iranian combatants in defending their Islamic revolution. This research is important, because it contributes to the psychological literature about the role of religion and spirituality in mental health and the perspectives of combat veterans from an Islamic context.

## 1.3 Aims of Study

The primary aim of the current study is to investigate the contribution of religious coping in predicting mental health in Iranian disabled war veterans with traumatic experiences. In addition, social support and personal meaning will be assessed because of evidence suggesting that these variables may mediate the relationship between religious coping and health (e.g., McIntosh et al., 1993; Zika and Chamberlain, 1992). Previous research has been conducted mainly on Western and predominantly Christian samples and very little is known about how religious beliefs and practices help Muslims and those of other faiths to cope with their traumatic as well as health problems.

In this study, it was hypothesised that in a traditional religious society, religious coping may have a unique contribution on the psychological well-being of disabled people facing traumatic experiences. In addition, as already noted, Iranian veterans considered the war as a sacred defence and gave a religious significance to their involvement in war consistently viewing it in a sacred context. Therefore, it is expected that religious beliefs and practice may have a strong impact on coping in disabled veterans in contrast to other potential factors such as social support and personal meaning.

The second aim of the current study is to examine the relationship between both positive and negative religious coping strategies with mental health as well as the association between non-religious coping strategies and mental health. It was expected that veterans who use more often positive religious coping strategies would experience lower levels of mental health problems, and that veterans who use negative religious coping strategies would experience higher levels of mental health problems. Previous research has demonstrated that positive religious coping has a positive association with mental health and negative religious coping has a positive association with distress indicators (e.g., Pargament et al., 2004; Pieper, Van Uden, 2005). It was also hypothesized that participants who use maladaptive styles of coping would experience a higher level of mental health problems. The literature has shown a negative relationship between constructive coping strategies and mental health problems and a positive association between unconstructive coping methods and mental health problems (Carver et al., 1989; Fillion et al., 2002).

The prevalence of mental health problems will also be investigated among Iranian disabled veterans. It was hypothesized that a low proportion of disabled veterans would experience anxiety, depression, and PTSD. Previous studies have shown a relatively high prevalence of PTSD, anxiety and depression and other psychiatric disorders among war veterans of World War I and II and the Vietnam war (e.g., Hamilton & Canteen, 1987; Kulka et al., 1991). The studies conducted in Iran have examined mental health problems among disabled veterans who had been referred to the therapeutic centres for treatment. These studies have also shown a high prevalence of psychological problems among veterans (e.g., Dashti & Javid, 1992; Salehi, 1984).

However, in the present research, in order to be able to investigate the role of religious coping on the mental health of Iranian veterans, a new religious coping scale which would be suitable for Iranians and would assess positive and negative styles of religious coping, has been developed following the model of Pargament's (1998) conceptualization of religious coping. Furthermore, to examine the contribution of personal meaning on mental health of veterans, the reliability, validity and the applicability of the Life Attitude Profile-revised (Reker, 1999), a measure of personal meaning, (Reker, 1999) will be examined in an Iranian sample. These two studies occupied the first stages of research developing the religious coping scale and testing reliability, validity, and applicability of a scale of personal meaning.

## 1.4 Outline of Thesis

The premise for this study has been based on the fact that religion is integral in the lives of many Iranian people. It can therefore be hypothesized that religion may have a strong effect on coping with health problems in this population. Therefore, the aim of this research was to investigate the role of religiosity and spirituality on coping in a group of disabled war veterans. The remaining chapters of this thesis address the theoretical concepts as well as empirical findings on the role of religiosity/spirituality, social support, and personal meaning on health. Chapter 2 of the thesis reviews conceptualization of religiosity and spirituality, the benefits of spirituality on different aspects of physical/mental health and the measurement of religiosity. In Chapter 3 findings on the development, reliability and validity of a religious coping scale developed by the author for use with Iranians will be presented. In Chapter 4, the

concept and theories of personal meaning, psychological models of meaning and methods of measurement will be reviewed. Chapter 4 also discusses the psychometric properties of personal meaning measures particularly the Life Attitude Profile-Revised scale followed by a review of research on personal meaning, religiosity and well-being. In Chapter 5, the empirical findings will be presented relating to the reliability, validity and applicability of the personal meaning scale employed in a sample of Iranian people, as well as personal meaning across age and on the relationship between personal meaning and psychological well-being. Chapter 6 discusses potential contextual factors influencing the perception of Iranian veterans and also explains the concept of PTSD. In addition, previous research on epidemiological findings and important factors buffering war-related stress in combat veterans from recent wars and specifically the Iran-Iraq conflict will be reviewed. Chapter 7 presents findings on the prevalence of mental health problems such as anxiety, depression, and PTSD among disabled veterans, on the association between religious coping and mental health, and also on the effect of religious coping, social support, physical function, and personal meaning on the mental health of participants. Chapter 8 summarises the main findings of the empirical studies and discusses the findings of the main study. Chapter 8 also raises questions that should be considered in future research.

# Chapter Two: Spirituality/Religiosity, Coping and Health

## 2.1 Chapter Overview

Religiosity and spirituality have been considered as a coping mechanism in health context. This chapter addresses the conceptualization of religiosity/spirituality, coping and health. The present chapter will describe the potential influence of religion and spirituality on health behaviour, in providing a meaning system, social support, and psychological benefits. This will be followed by a description of the process, resources, and functions of coping and how religion influences coping, and continued by an overview of research on religion, spirituality and well-being. Importantly, an Islamic perspective on coping will be briefly described. Finally, the approach to measurement of religiosity will be discussed.

## 2.2 Religion/Spirituality and the Sacred

Religion is considered a diverse and complex concept in the history of science. Recent research has also undermined the rich, multidimensional nature of religious experience (e.g., Hood et al., 1996; Koenig et al., 1998). Complexity is apparent even in the meaning of the term religion. Scientists and the general public define religion in diverse ways (Clark, 1958; Pargament et al., 1995). The multiplicity of these definitions may be an accurate reflection of the multifaceted nature of religious life.

Some definitions emphasize religion as a group process and others stress the theological elements of religions they all capture something of the essence of religion, but each one describes this essence somewhat differently. Religion is best considered as a diverse, multifaceted construct. Religion and spirituality have generally been defined as that realm of life which is concerned with ultimate purpose and meaning in life, a set of principles and ethics to live by, commitment to God or a higher power, a recognition of the transcendent in everyday experiences, a selfless focus, and a set of beliefs and practices that is designed to facilitate a relationship with transcendent (see Emmons, 2003; Pargament, 1997).

Larson et al., (1997) consider religion as an organized system of beliefs, practices, and symbols designed to facilitate closeness to a higher power, and include the

understanding of one's relationship with others and one's responsibility to those others. According to Levin al., (1995), religiosity involves three major dimensions: (1) organizational religious activity, (2) non-organizational religious activity, and (3) subjective or intrinsic religiosity.

Organizational religious activity includes attending a place of worship, participating in prayer, study groups on holy books, and going to other functions in holy places. This is the social, other-directed dimension of religiousness. Non-organizational religious activity consists of more private and personal religious behaviours. These include prayer or meditation, reading the religious literature, and listening to religious radio or watching religious television. These activities are typically done alone and do not necessarily involve relating to other people. Finally, intrinsic religiosity reflects the extent to which religion is the primary motivating factor in people's lives, drives behaviour, and influences decision-making.

According to Koenig et al., (2004), spirituality is the quest for understanding life's ultimate questions and the meaning and purpose of living, which often leads to the development of rituals and a shared religious community. Many people may not be formally affiliated with a religious tradition or even believe in God, yet may still be involved in a spiritual quest, seeking meaning in something outside of their own personal egos. Spirituality, though, means different things to different people. It has been difficult to capture the essence of spirituality by measuring observed activities or even asking questions about beliefs.

Pargament has defined religion as "a search for significance in ways related to the sacred" (Pargament, 1997, p. 32). There are three key terms in this definition: "significance," "search," and "sacred." It is assumed here that people seek whatever they hold to be of value or significance in life (Pargament, 1997). This definition of religion also rests on the assumption that people are proactive and goal-directed beings, *searching* for significance. Searching is a dynamic process that involves discovering significance, conserving or holding on to significance once it has been found, and transforming significance when it becomes necessary (Pargament, 1997; Pargament et al., 2002). According to Pargament, the involvement of the sacred in the search for significance makes religion distinctive.

Historically, there has been little interest in distinguishing between religion and spirituality, with the two concepts often being intertwined in their cultural meaning. Indeed, it is only recently that spirituality has begun to acquire meanings separate from religion. The social processes assumed as being responsible for this separation include secularism and disillusionment with religious institutions (Sheldrake, 1992).

Both spirituality and religion focus on the sacred or divine, beliefs about the sacred, the effects of those beliefs on behaviour, practices used to attain or enhance a sense of the sacred, and experiences of spiritual or religious states of consciousness. The major difference is that religion is viewed as being linked to a formal religious institutional context (Pargament, 1997). As Pargament pointed out, the most disturbing element of this distinction is that it can lead to an artificial and inaccurate separation between institutions and individuals. Although religious participation often occurs in religious institutions, religious activity is not confined to institutional settings. Nor do religious institutions typically preclude individualized religious expression. In fact, they generally encourage it. The search for the sacred is central to definitions of religion and spirituality. This focus on the sacred helps to distinguish both spirituality and religion from other social and personal phenomena (e.g., Berger, 1967).

Wong and Fry (1998) argued that even though there is considerable overlap between religion and spirituality, there are also areas of difference. For example, religion can be totally devoid of spirituality when it consists only of the behavioural observance of a given set of rituals without inner meaning. There is also nothing spiritual when religion is used only as a political means to control believers. Furthermore, the term religion, rather than spirituality, should be used when the subject matter is institutional religion and its practices, such as church attendance, worship services, or any set of rituals related to a particular faith group.

Emblen (1992) also defined religion as "a system of organized beliefs and worship that the person practices" (p. 45). Similarly, King et al., (2001) considered religion as outward practice of a spiritual understanding and framework for a system of beliefs, values, codes of conduct and rituals which involves some form of communal religious observance. According to these authors, the term spirituality refers more broadly to a person's belief in a power apart from their own existence. It is the sense of

relationship or connection with a power or force in the universe that transcends the present context of reality. Emmons (2003) defined spirituality quite broadly, with the term encompassing a search for meaning, for unity, for connectedness, for transcendence, and for the highest of human potential. Furthermore, Martin and Carlson (1988) defined spirituality as a process by which individuals recognize the importance of orienting their lives to something intangible that is beyond the range of their own experience.

Pargament et al., (2005) argue that there is something uniquely meaningful about religion. According to these authors, through the process of sanctification, various roles, attributes, and objects are imbued with sacred qualities or perceived as a manifestation of the divine (see Pargament & Mahoney, 2002 for review). Theorists assert that once an aspect of life is invested with sacred status, it becomes something very different from the profane.

Pargament and Mahoney (2002) have conceptualized that people will treat sacred objects differently than those not perceived as sacred; that is, they are more likely to attempt to preserve and protect objects that have been sanctified. Furthermore, they are more likely to use these objects as sources of support, strength, satisfaction, and significance in their lives. A series of studies covering diverse areas of human functioning (e.g., strivings, parenting, marriage, nature, and sexual intercourse) provides some support for these hypotheses and the important role of sanctification as a meaning-making process (see Mahoney et al., 2003; Pargament et al., 2005).

Mahoney et al. (2003) also conducted a study that examined what happens when people sanctify or attribute spiritual significance to their personal strivings. They found that those who attributed spiritual significance to their strivings reported greater importance of the striving, derived greater meaning from pursuit of the striving, endorsed stronger commitment to the striving, felt more supported by others, and derived more satisfaction from the pursuit of the sacred striving. When asked to indicate how they were spending their time and energy over five different days, the participants also indicated that they had devoted more time to pursuits that were more highly sanctified.

In a study on marriage, Mahoney et al., (2003) demonstrated that couples who viewed their marriage as sacred treated their relationships differently. They were less verbally aggressive and more collaborative in problem solving, reported more investment in their marriages, and derived more satisfaction from their marriages. It could be argued that perceiving objects as sacred is merely a case of caring for an object a great deal, viewing it as important, or seeing it positively. However, Mahoney et al., (2003) compared couples who viewed their marriages as sacred with couples who saw their marriages as very important but not sacred. In comparison to the "very important but not sacred" group, couples who perceived their marriages as sacred reported significantly greater marital satisfaction, more investment in their marriages, and better marital problem solving strategies. These initial findings suggest that perceptions of objects as sacred are more than perceptions of importance.

## 2.3 Health Benefits of Religion and Spirituality

This is the major issue now being addressed by social and behavioural scholars. Researchers have identified characteristics, functions, expression, and manifestations of practicing religion or being religious that exert health-related effects. Several researchers have suggested that particular types or modes of religious beliefs or practices may be associated with certain bio-behavioural or psychosocial constructs that are believed to be related to health (e.g., Ellison & Levin, 1998; George et al., 2000).

Several possible explanatory mechanisms by which aspects of religious involvement may lead to positive health outcomes have been described (Ellison & Levin, 1998; George et al., 2000; Koenig, 2001). These mechanisms involve a variety of behavioural and psychosocial constructs that are commonly encountered in health education, theory, and practice. They include (1) regulation of individual lifestyles and health behaviours, (2) providing a system of meaning and coherence (3) provision of social support (4) promotion of positive self-perceptions (e.g., self-esteem, feelings of personal mastery), (5) provision of specific coping resources (i.e., particular cognitive or behavioural responses to stress), (6) generation of other positive emotions (e.g., love, forgiveness), (7) promotion of healthy beliefs, and (8) additional hypothesized mechanisms, such as the existence of a healing bio-energy.

### *2.3.1 Beneficial Effects on Health Behaviours*

An important mechanism by which religion benefits health is via its effects on health behaviours (George et al., 2000). It is argued that religious involvement may promote mental and physical well-being by regulating health-related conduct in ways that decrease the risk of disease. This includes discouraging certain behaviours that increase the risk of health problems and encouraging positive, low-stress lifestyle choices. Some religions include specific prohibitions against behaviours that place health at risk (e.g., use of tobacco, use of alcohol at all or in excess, use of illegal drugs, reckless sexual behaviour, and violence). Consequently, these religious groups have significantly lower rates of many chronic diseases, such as cancer. Similar religious factors are also inversely related to risky sexual behaviours (e.g., premarital intercourse, promiscuity). Many other religions encourage health promotion as a result of viewing the body as having spiritual as well as material significance (e.g., Ellison & Levin, 1998; George et al., 2000; Koenig, 2001).

Investigations suggest that religious people with strict behavioural proscriptions concerning health-related behaviours are healthier, live longer and have fewer thoughts of suicide, on average, than non-religious people (e.g., Enstrom, 1975; Grosuch, 1988). People who report high levels of religious involvement engage in fewer risky health behaviours than their nonreligious peers, regardless of denomination (e.g., Kark et al., 1996).

### *2.3.2 The Meaning and Coherence Hypothesis*

Another possible explanation for the health benefits of religion is the meaning and coherence hypothesis, which assumes that religion benefits health by providing a sense of coherence and meaning so that people understand their role in the universe, the purpose of life, and develop the courage to endure suffering (George et al., 2000). Indeed, one of the central components of this hypothesis is that people can suffer greatly and minimize the risks of that suffering for health and well-being if they find meaning in that suffering. Also, to the extent that this hypothesis is supported by research, it can help to explain how very private religious practices and experiences, as well as public religious participation, benefit health (see Antonovsky, 1987; Baumestier, 1991; Reker et al., 1987; Zika & Chamberlain, 1992).

Religion is considered as central to the meaning systems of many people, although its centrality varies greatly from individual to individual (Pargament et al., 2005). Some theorists have argued that religion grows out of a human need for comprehension of the deepest problems of existence (Geertz, 1966). Regardless of whether religion arises specifically out of this need for meaning or simply helps to establish it for people who embrace religion for other reasons, it is often characterized as the prime example of a belief system that provides ways to understand suffering and loss (Kotarba, 1983).

Clearly, for many people, religion is an important philosophical orientation that affects their understanding of the world, and makes reality and suffering understandable and bearable (Pargament, 1997). Religion frequently serves as an individual's core schema, informing beliefs about the self, the world, and their interaction (McIntosh et al., 1993), and providing understanding of both mundane and extraordinary occurrences (Hood et al., 1996). In terms of goals, religion is a central purpose in life for many people (Baumeister, 1991), providing the ultimate motivation and goals for living as well as prescriptions and guidelines for achieving those goals.

Religion is often involved in the reconstruction of traumatic events (Pargament, 1997). Geertz (1966) also argues that an essential task of religion is to cope with crises of interpretability. According to him, if sufferings become intense enough or are sustained long enough they are radical challenges to the proposition that life is comprehensible. According to Pargament (1997), religions provide a framework for understanding the most senseless accident, the most unbearable pain, or the most unjust outcome. In these situations religion suggest a different way of thinking about hardship, about people, and about the sacred. Beliefs about events, oneself, and the world are realigned with each other and placed in a new perspective.

In a description of the impact of religion on health, Pargament (1997) used the reframing model. In the process of reframing, suffering may become something explainable, bearable, and even valuable. Reframing is designed to conserve significance: to soften the blows of crisis, to reaffirm that life has meaning in spite of its pain; and to protect the sacred, however it may be defined. Central to this belief system

is the idea that a benevolent God participates in our lives to ensure that bad things will not happen to good people (Kushner, 1981).

According to Pargament (1997), one way to reconstruct a shaken belief system is to redefine the traumatic experience so that can be reinterpreted in the context of the individual's life. Attribution to the divine can play a part in this process. Another perspective on reframing focuses less on human responsibility for suffering than the limited human ability to understand it. This type of reframing has a paradoxical quality. Indeed, people make sense of a life crisis by concluding that we cannot make sense of it; some things, we decide, are just beyond our comprehension. From this perspective, some problems must remain mysteries never to be fathomed, puzzles too complicated ever to solve. That does not mean there is no ultimate answer. But it does mean that as human beings we will never be able to see clearly into the divine plan.

### *2.3.3 Provision of Social Support*

A third possible mechanism by which religion affects health is social support. It is widely believed that at least part of the relationship between religious involvement and health outcomes results from the role of religious communities in providing social ties and support (e.g., Ellison & Levin, 1998). Pieper and Van-Uden (2005) point out that social support is a very important variable in religious coping research. According to them, there are several reasons that religious participation, especially public religious participation, may facilitate social support which, in turn, has been demonstrated to protect health and facilitate recovery from illness. Most obviously, religious participation may be one of the major avenues available for developing close social bonds outside the nuclear family and one's religious community can be depended upon in times of trouble. Moreover, religious organizations frequently define support (i.e., fellowship) as an explicit part of their organizational mandate.

Research has indicated that relative to their non-religious peers, people with high levels of public religious participation report: (a) larger social networks, (b) more interaction with their social networks, (c) receiving more assistance from others, and (d) higher levels of satisfaction with received social support (Ellison & George, 1994; Zuckerman et al., 1984).

Empirical evidence suggests that regular attendance at religious services increases social networks among their members. Furthermore, at religious community meetings, friendships develop quickly between persons who share values, interests, and activities. Religious services and related activities tend to bring together persons with common faith commitments, and often broadly similar social and political values on regular occasions. Thus, congregations offer fertile terrain for the cultivation of friendships, which can be developed further in other, secular settings (see Ellison & Levin, 1998).

### *2.3.4 Psychological Benefits*

Psychological benefits of religion has been the topic most frequently investigated by psychologists and sociologists interested in religion, reflecting an assumption that they are closely related, or that religious attachments themselves have powerful effects on one's character. Brown (1994) states that religion can occupy a central and integrative role in the development of a "life-style" and the "character" that is associated with it, since a belief in religion constrains some actions and facilitates others. The relationships between personality and religion have been addressed in a variety of theories with the primary debate being about whether religion is a unitary phenomenon, or involves a group of separate attitudes, and whether it has positive or negative consequences (see Geyer & Baumeister, 2005).

*Sense of Control*: It is believed that religion facilitates adaptation to serious, uncontrollable life events. By praying to God, the religious person believes he can influence his situation and that he is empowered with the capacity to directly communicate with the source of all control and change. Devout people believe that their prayers will be answered in God's time and in His way, either by reversing the situation or by facilitating adaptation and personal growth that will ultimately bring about deeper joy and fulfilment. If one relies and depends on a higher power, one feels less pressure to control circumstance and to worry about results. This way of appraising a stressful life situation may relieve anxiety and counteract feelings of hopelessness and despair, even in the most desperate of circumstance (e.g., Koenig, 1994).

*Self-Esteem*: It is argued that various aspects of religious beliefs and involvement may also provide a basis for self-esteem and a sense of self-worth and feeling of efficacy that

is independent of individual productivity, talent, physical appearance, or relationships with others (Ellison & Levin, 1998; Koenig, 1994). Moreover, by attaching their hopes and dreams to religion, people may be better prepared to detach themselves from material possessions or personal relationships when these are lost. In other words, if a person's self-esteem is rooted in religious faith, he may view other losses as less significant threats to his happiness. Religion provides a focus outside the individual and discourages excessive preoccupation with self or excessive dependence on others to meet all of one's personal needs. Rather than being centred on the self or others, personal identity becomes rooted both within the individual and within the faith community and its shared traditions (Koenig, 1994).

Ellison and Levin (1998) have hypothesised that through devotional activities (e.g., prayer, scriptural studies) and other spiritual practices and pursuits, individuals may construct personal relationships with a "divine other" in much the same way that they develop relationships with concrete social others. Also by identifying with figures portrayed in religious texts and media, individuals may come to define their own life circumstances in terms of a biblical figure's situation and then begin to interpret their situations from the point of view of the "God-role" (i.e., what a divine other might expect in the way of human conduct). Thus, individuals may gain a sense of self-worth and control by developing a close personal relationship with a potent divine other who loves and cares for each person unconditionally and can be engaged interactively in a quest for solace and guidance. They may also enjoy a sense of vicarious control over their affairs through their alliance with an omniscient, omnipotent deity (e.g., "with God all things are possible)."

*Optimism and Hope*: William James (1902) observed long ago that religion is associated with hope and optimism. Several studies on the relationship between religion and optimism have demonstrated that turning to religion is associated with the generalized expectation that outcomes will be positive (Carver et al., 1989).

## 2.4 The Study of Coping

Research on coping has flourished, particularly since rise of cognitive psychology, within which coping processes are seen as a form of information

processing, in which the individual is not being directed by structural personality characteristics, but engages in a dynamic interaction with the environment. Researchers have argued that coping is a complex process, influenced by both personality characteristics (Bolger, 1990; Friedman et al., 1992), situational demands and even the social and physical characteristics of the setting (Folkman & Lazarus, 1980; Heim et al., 1993). Lazarus and Folkman (1984) have developed the most elaborate theory. They define "stress" as follows, "Psychological stress is a particular relationship between person and environment that is appraised by the person as taxing or exceeding his/her resources and endangering his/her well-being" (p. 141). Hence, stress is not an automatic response of the individual to a stimulus, but is the consequences of a process in which both cognitive appraisal and assessment of the stressor play an important role.

According to Lazarus and Folkman (1984) people differ in way in which they react to stressors. Cognitive appraisal is a mental process in which a differentiation can be made between "primary appraisal" and "secondary appraisal". Primary appraisal refers to the question whether a situation or event counts as a threat to the individual's well-being. Secondary appraisal, on the other hand, relates to the assessment of the resources that a person has for meeting the requirements of the situation or event. According to Pieper & Van-Uden (2005), these resources are diverse and include material, physical, psychological, social and religious resources.

Folkman and Lazarus (1980) define coping as the process of managing stressors that have been appraised as taxing or exceeding a person's resources and as the "effort to manage specific external and/or internal demands" (p. 141). With this definition they distinguish between coping and automatized behaviour by limiting coping to demands that are appraised as taxing or exceeding a person's resources. In effect, this limits coping to conditions of psychological stress, which requires mobilization and excludes automatized behaviours and thoughts that do not require effort. Furthermore, the problem of confounding coping with outcome is addressed by defining coping as efforts to manage, which permits coping to include anything that the person does or think, regardless of how well it works.

Lazarus and Folkman (1984) emphasized the dynamic nature of coping which involves appraisal and reappraisal, evaluation and re-evaluation. Their model of stress

emphasizes the interaction between the person and their environment. Coping is also seen as a similar interaction between the person and the stressor. Further, in the same way that Lazarus and colleagues described responses to stress as involving primary appraisal of the external stressor and secondary appraisal of the person's internal resources, coping is seen to involve regulation of the external stressor and regulation of the internal response. Cohen and Lazarus (1979) defined the goals of coping as reducing stressful environmental conditions and maximizing the chance of recovery, adjusting to or tolerating negative events, maintaining a positive self-image, emotional equilibrium and continuing satisfying relationship with others.

### *2.4.1 Functions of Coping*

Researchers have described different types of coping. Some differentiate between approach and avoidance coping, whilst others describe emotion focused and problem focused coping.

*Approach versus Avoidance:* Roth and Cohen (1986) have defined two basic modes of coping, approach and avoidance. Approach coping involves confronting the problem, gathering information and taking direct action. In contrast avoidant coping involves minimizing the importance of the event. People tend to mainly use one form of coping or the other although it is possible for someone to manage one type of problem by denying it and another by making specific plans. Some researchers have argued that approach coping is consistently more adaptive than avoidant coping. However, research indicates that the effectiveness of the coping style depends upon the nature of the stressor. For example, avoidant coping might be more effective for short-term stressors (see Wong & Kaloupek, 1989), but less effective for long-term stressors (see Holahan & Moos, 1986). Some researchers have also explored repressive coping (Myers, 2000) and emotional non-expression (Solano et al., 2001) which are similar to avoidant coping.

*Problem Focused versus Emotion Focused:* Folkman and Lazarus (1980) have distinguished between a coping that is directed at managing or altering the problem causing the distress (problem-focused coping) and a coping that is directed at regulating the emotional response to the problem (emotion-focused coping). Problem-focused coping involves attempts to take action to either reduce the demands of the stressors or

to increase the resources available to manage it. Emotional-focused coping involves attempts to manage the emotions evoked by the stressful event. People use both behavioural and cognitive strategies to regulate their emotions. In general, emotion-focused forms of coping are more effective when there has been an appraisal that nothing can be done to modify harmful, threatening, or challenging environmental conditions. Problem-focused forms of coping, on the other hand, are more effective when environmental conditions are appraised as amenable to change.

According to Folkman and Lazarus (1980), the predominance of one type of strategy over another is determined, in part by personality factors (e.g., some people cope more actively than others), and in part by the type of stressful event. For example, people typically employ problem-focused coping to deal with potential controllable problems such as work-related problems and family-related problems, whereas stressors perceived as less controllable, such as certain kinds of physical health problems, prompt more emotion-focused coping.

### *2.4.2 Resources of Coping*

Researchers have identified a number of resources and highlighted their value in the face of stress (see Antonovsky, 1987; Lazarus & Folkman, 1984). Pargament (1997) described prior experience with a stressor as one of these resources. According to some studies, people who have experienced a prior tragedy come to term with the experience of trauma more easily than people who have not experienced a prior tragedy. Interestingly, prior encounters with tragedies are also helpful in reducing the impact of stressor (see Norris & Murrel, 1988).

Bandura (1989) has conceptualized that an optimistic sense of personal efficacy in life is associated with many positive consequences, including the ability to persevere under difficult conditions, the capacity to keep oneself together emotionally in coping, and the ability to avoid situations that cannot be handled. Cohen and Wills (1985) regard social support as a resource in times of stress, and conclude that being able to talk about one's problems with others promotes well-being in the face of stress, but not necessarily under non-stressful conditions.

According to Pargament (1997), some ways of coping with problems may indeed be more helpful than others in many life situations. It does not follow, however, that certain ways of coping are always better than others. The helpfulness of any coping strategies may depend as much on the particular problem the individual is facing and the person doing the coping as the strategy itself. He argues that active coping methods that emphasize the role of personal control in dealing with stressful situations are preferable to passive efforts. Several studies support this notion. For example, there is evidence that active coping may facilitate the immune functioning and long-term survival of cancer patients (Fawzy et al., 1993) and the long-term psychological adjustment of arthritis patients (e.g., Brown et al., 1989).

Pargament (1997) argues that the task of finding a coping method that will be helpful to all people, for all purposes, across all situations seems difficult, if not impossible. The central point in Pargament's view is that any evaluation of the impact of coping on outcomes should be sensitive to the particulars of the individual, the situation, and the social context and no single method of coping in and of itself is likely to hold the key to success. He argues that an effective coping process is well integrated, so that each of the parts coordinates appropriately with the others, and the system operates in a coordinated fashion. In contrast, an ineffective coping process is poorly integrated. The elements of coping become disentangled or out of alignment, and the system itself loses its balance. The problem here lies in the system rather than with any single element of coping.

According to Pargament (1997) any encounter between a person and a stressful situation can be evaluated according to three process dimensions: means, ends, and individual-system fit. With respect to the means of coping, it is important to evaluate the extent to which the various appraisals and methods of coping in a particular situation are appropriate to the demands of the situation and the goals of the individual. In an effective coping encounter, the individual's appraisals are well attuned to the realities of the situation and to the individual's own resources and burdens in coping. The choice of methods of coping is also appropriately tailored to the situation, the individual's capabilities and limitations, and the individual's objects of significance.

An evaluation of coping should also consider the ends of significance the individual is striving toward. It is not the case that one destination is better or worse for all people. Problems in coping can rise, however, when there is a loss of balance in the various goals that contribute to an individual's pattern of significance.

Finally, it is important to consider the degree of fit between the individual and the social system in coping. Social systems, like individuals, have their own viewpoints about the most appropriate goals in life and the best ways to reach them. When coping is going well, people may be unaware that they are in fact being supported by their families, friends, and institutions. There are times, however, when individual and system experience "coping conflict," when the person's needs clash with what the social system is willing to provide.

### *2.4.3 Factors Influencing Coping*

Researchers have identified several factors to influence which coping strategy is used. They include type of problem, age, gender, controllability and available resources (Ogden, 2004).

*Type of Problem*: Work problems seem to evoke more problem-focused coping whereas health and relationship problems tend to evoke emotion-focused coping. With regard to age, children tend to use more problem-focused coping strategies whereas emotion-focused strategies seem to develop in adolescence (Ogden, 2004). Folkman et al., (1987) reported that middle aged people tend to use problem focused coping whereas the elderly tend to use emotion-focused coping.

*Gender*: It is generally believed that women use more emotion focused coping and men use more problem-focused coping. Some research supports this belief. For example, Stone and Neale (1984) investigated coping with everyday events and reported that men were more likely to use active coping strategies. However, Folkman and Lazarus (1980) and Hamilton and Fagot (1988) found no gender differences.

*Controllability*: People tend to use problem focused coping if they believe that the problem itself can be changed. In contrast they use more emotion focused coping if the problem is perceived as being out of their control (Lazarus & Folkman, 1984).

*Available Resources*: Coping is influenced by external resources such as time, money, education, and family. Poor resources may make people feel that the stressor is less under their control, leading to reduced likelihood of using problem focused coping (Ogden, 2004; Terry, 1994).

### *2.4.4 Coping with Physical Disability*

Disability represents a disruption of life so severe that it is likened to a kind of death to people when the loss is irreversible. Adjustment to physical disability is dependent upon a wide variety of social, psychological, and environmental factors. From a psychological point of view, a person's response to disability is related to their level of psychological functioning prior to their disability. In other words, if they had difficulty coping with life problems and if they had low self-esteem prior to disability, they are likely to have more difficulty adjusting than previously well-adjusted people. Environmental factors relate to the actual physical changes and obstacles both at home and at the work site. Individuals whose disability presents a handicap in their physical environment can have serious adjustment difficulties. Someone who has been physically active may be more seriously affected, particularly if their self-image is dependent on these physical aspects (Edwards, 1988).

Many people largely define themselves by their careers. When vocational aspirations are affected by one's disability, adjustment may be tenuous. Social factors can often have the most profound impact on one's adjustment to disability. The family can play a pivotal role in the successful adjustment. Research suggests that the support of family members correlates with a positive adjustment. Friends can likewise make the return to the social sphere easier by showing their support and acceptance. Interviews with well-adjusted persons with disabilities suggest that families who respond empathetically to the person's feelings and maintain high levels of expectation for them are most helpful. Family attitudes toward disability also affect their ability to cope with their situations. Many of the feelings that the disabled person has, such as anger and depression, can be experienced by family members, often to a greater degree. Guilt is another common feeling, particularly for spouses for remaining healthy while their partner is not. Family members can often be over-protective of individuals. This response, however, may stimulate feelings of weakness, low self-esteem and inability. It is more helpful for the family to express love and acceptance while encouraging the

individual to return as quickly as possible to his or her previous pattern of functioning and activities (Edwards, 1988).

The coping strategies used can appear the same as those manifested in the process of grief. Studies of grief reactions to loss and disability indicate a significant similarity between reactions to loss at the onset of disability and grief reactions to a loved one dying and bereavement (Robinson et al., 1995). Falek and Britton (1974) have described the coping process as a universal reaction to change in the organism occurring from infancy through adulthood in response to traumas. They see the coping sequence as comprising four basic stages: 1) shock and denial, 2) anxiety, 3) anger and/or guilt, and 4) depression. Kubler-Ross (1975) also identified five similar stages of coping with loss: denial and isolation, anger, bargaining, depression, and acceptance.

Researchers argue that demographic, personal/ psychological, medical/disability related and environmental factors influence coping. These interrelated areas influence one another as well as the total person. Personal/psychological factors include acceptance of the disability, self-concept, locus of control, spirituality, intelligence, and adaptability. Medical and disability related factors involve diagnosis, prognosis, severity of impairment, functional limitations, degree of dependency on others for day to day functioning, nature and treatment of pain, the visibility of the disability, duration of the disability, and the presence of multiple disabilities. Environmental factors include the support of family and significant others, the accessibility of health care, societal attitudes toward disability, physical accessibility, range of available options, and the availability of support or advocacy groups (e.g., Robinson et al., 1995).

## 2.5 A Study of Religious Coping in a Health-Related Context

It has been argued that religion is generally beneficial to mental health. Schumaker (1992) summarized the rationales in support of this position. According to him religion (1) reduces existential anxiety by offering cognitive structure whereby pacifying explanations and attributions serve to order an otherwise chaotic universe; (2) offers a sense of hope, meaning, and purpose along with a resultant sense of emotional well-being; (3) provides a reassuring fatalism that enables one to better withstand suffering and pain; (4) affords solutions to a wide array of situational and emotional conflicts; (5) partially solves the disturbing problem of mortality by way of afterlife

beliefs; (6) gives people a sense of power and control through association with an omnipotent force; (7) establishes self-serving and other-serving moral guidelines, while suppressing self-destructive practices and lifestyles; (8) promotes social cohesion; (9) offers a well focused social identity and satisfies belongingness needs by uniting people around shared understandings; and (10) provides a foundation for cathartic collectively enacted ritual.

Similarly, Jarvis and Northcott (1987) hypothesized that religion may impact on health by the following mechanisms: encouraging behaviour that prevents illness or death or that assists in treatment of sickness; discouraging behaviour that is harmful to life or that would hinder treatment; placing a person in a support group that can, depending on the strength of the group, assist in times of need; and cultivating attitudes that may give the individual a helpful perspective with which to face stressful life situation.

Similarly, Idler and Kasl (1997) claimed that there are many theoretical reasons for expecting religion to be related to better health. According to them, religious beliefs often foster good health practices and minimize poor ones such as alcohol and substance abuse. Furthermore, religious communities provide cohesive social network contacts and support for people experiencing difficulties; and religion offers a coherent, overarching set of beliefs for interpreting the events of life and death. Greenstreet (2006) also pointed out that religious practice enhances the avoidance of vices such as gluttony, lust, envy and pride; and increases efforts to be virtuous (i.e., forgiving, grateful, and hopeful), which are associated with physical and mental health.

Hill and Pargament (2003) used attachment theory to suggest that experiencing a secure connection with God should be a source of strength and lower physiological responses to stress as well as resulting in lower levels of loneliness. They also outline the health benefits that individuals derive from the support of members, leaders and clergy in their religious congregations. As with other forms of social support, these include a valuable source of self-esteem, information and companionship. Similarly, Koenig (1995) argues that besides reducing the frequency of negative life events, religion may also provide a cognitive framework that enables a healthier appraisal of those stressors that do occur. By promoting a positive and coherent world view,

religious beliefs and commitment help people interpret losses in a more optimistic manner that is less threatening to the self.

### *2.5.1 Positive Religious Coping*

Religious coping refers to the use of religious beliefs or practices to cope with stressful life circumstances (e.g., Koenig, 2001; Pargament, 1997). It is believed that religious beliefs and practices may aid in coping with stressors in several ways. Different forms of religious coping may alter primary appraisals, leading religious people to reassess the meaning of potentially problematic conditions as opportunities for spiritual growth or learning, or as part of a broader divine plan, rather than as challenges to fundamental aspects of personal identity. Religious coping also appear to bolster feelings of control, enhancing confidence in the ability to manage difficulties and producing desirable health outcomes. According to some studies, religion can help individuals to adjust the self-concept so that physical frailties and other problems are less threatening to personal identity (see Ellison & Levin, 1998; Pargament et al., 2005; Tix & Frazier, 1998).

Religious beliefs and practices, especially those centring on prayer, meditation, and other devotional pursuits may be valuable in dealing with serious health problems and bereavement. Health crises and bereavement are events and conditions that (1) may lack clear or satisfying worldly explanations, (2) may constitute "boundary experiences" in that they challenge fundamental premises of existence (3) may undermine commonsense notions that the world is just and that people "get what they deserve" (e.g., premature or violent deaths, unexpected accidents), and (4) may require emotion management as well as, or instead of, pragmatic problem-solving efforts (Ellison & Levin, 1998).

Some religions encourage active problem solving to a point and then advocate acceptance and turning the problem over to God (e.g., Koenig et al., 1996). After a person has done everything possible to change a situation, accepting the inevitable can reduce stress. These coping methods include forgiveness, purification and confession, spiritual support, religious appraisal, conversion, and religious approaches to control.

Different forms of religious coping have different implications for adjustment to major life events.

Pargament et al., (1998) identified two patterns of religious coping; positive and negative. The pattern of positive religious coping methods is an expression of a sense of spirituality, while the pattern of negative religious coping is an expression of a less secure relationship with God. They concluded that people made more use of positive than negative religious coping methods. The two patterns have different implications for health and adjustment. They found a positive relation between positive religious coping and health-related outcomes.

Reviewing the literature on the use of of religious coping, Pargament (1997) proposes that people are more likely to draw on religious coping methods when religious beliefs and practices are a larger part of their general orientation to the world and when they perceive religion to be a compelling source of solutions to problems in living. Conversely, religious coping is unlikely when people are unfamiliar with or unable to access religious beliefs and practice and when they do not believe that religious coping methods will solve particular problems. To the degree that people integrate religion into their definition of themselves and their social role, we would expect them to draw more fully on their religious resources in times of stress.

### *2.5.2 Religion and the Relief of Pain*

It is argued that religious beliefs provide a worldview in which pain and suffering can potentially have meaning and purpose. According to some studies, anything that gives pain meaning or purpose may help reduce the suffering associated with it (e.g., Harrison et al., 2005). Foley (1988) discusses the ways that religion may influence interpretation of personal suffering, thereby altering the perception of and ability to cope with pain. Religion may modify one's primary appraisal of negative life events such as pain, causing one to reassess the meaning of potentially stressful situations and to see them as opportunities for spiritual growth or learning or as part of a broader divine plan, rather than as a threat to personal identity. As suffering is reduced, the intensity of pain and disability it causes are also affected. On the other hand, by inducing guilt or by encouraging a false hope of being miraculously cured, religion may

lead to depression and disillusionment and thereby exacerbate pain. Some persons may see their pain as either just punishment for past sins or as God's will for them and may thus fail to make appropriate efforts to obtain pain relief (see Foley, 1988).

Foley (1988) pointed out that the findings of cross-sectional studies of relationships between pain intensity and religions variable should be interpreted with care. According to him, an inverse relationship between religious attendance and pain does not necessarily mean that going to religious places results in less pain; instead, it may simply mean that pain prevents persons from attending religious services. Likewise, a positive relationship between prayer and pain intensity is not necessarily evidence that prayer increases pain; it may mean that people don't start praying until the pain gets really bad and other avenues of relief have failed.

Religion may influence pain intensity by affecting cultural or societal expectations, providing a distraction from the pain, shutting the gate through the power of belief, enhancing the ability to cope with pain, or increasing social support (Koenig et al., 2001). Praying to God or mediating may take one's mind off one's pain. Rosenstial and Keefe (1983) reported a positive association between level of pain intensity and the diverging attention and praying factors.

### *2.5.3 Negative Effects of Religion on Health*

While the results from such studies as those reviewed above have led many researchers and practitioners to view religion in a positive and constructive light (e.g., Koenig et al., 2002; Loewenthal et al., 2001), it is believed that certain forms of religiousness may also be sources of problems or distress. In fact, religion may be uniquely tied to costs as well as benefits in living. Pargament et al., (2005) argues that the sacred; in the ultimate and definitive power and meaning associated with the Divine and related objects could make religion especially risky. For instance, perceived punishment or abandonment from God could imply an ultimate culpability, unacceptability, and unforgiveability of the individual. Similarly, viewing God as angry, vengeful, or powerless against evil could lead to fundamental fear, disillusionment, and distrust that shatters and reshapes one's view of God, people, and the world. Thus, negative forms of religiousness may be exceptionally distressful and problematic

because they can be perceived as implying harsh truths about the human condition that are ultimate, immutable, and eternal.

Similarly, Koenig (2001) argues that certain religious beliefs can interfere with the timely seeking of medical care and may delay diagnosis and treatment, leading to worse health outcomes. According to him, religious beliefs may prevent sufferers from complying with medical treatment by encouraging them to rely on faith rather than on traditional medical care; they may therefore refuse potentially life-saving blood transfusions, prenatal care, childhood vaccinations, or other standard treatment or prevention measures. For example, Spencer (1975) in his study on Jehovah's Witness showed that, compared to the general population, their rate of schizophrenia was three to four times higher. Jarvis and Northcott (1987) also described the negative impact of religious belief that it encourages behaviours can be harmful to life or health care; discouraging behaviour that may prevent illness or have a positive effect on treatment.

In line with the negative impact of religion on health, Lannin and colleagues (1998) in an empirical study investigated the reasons that breast cancer mortality in the USA is so much higher in African American women than white women. They studied 540 patients with newly diagnosed breast cancer and 414 control women matched by age, race, and area of residence. The outcome variable was breast cancer stage at diagnosis. Investigators found that "cultural beliefs" were a significant predictor of late stage at diagnosis. Among these cultural beliefs were "fundamentalist" religious beliefs such as "The devil can cause a person to get cancer" and "If a person prays about cancer, God will heal it without medical treatment." The researchers concluded that both socioeconomic and cultural beliefs accounted for the delay in diagnosis among African American women. Indeed, this is the interpretation of religion that causes negative consequences on health.

Some studies have found that a variety of symptoms related to religious thoughts are more prevalent in clinical populations from countries in which religion is at the central core of the society, particularly in Muslim and Jewish Middle Eastern cultures, as compared with clinical populations from the West (Bilbao & Giannakopoulos, 2005; Ghassemzadeh et al., 2002). A survey, conducted by the University of Parma in Italy, also revealed that devout Catholics are more likely to show symptoms of obsessive

compulsive disorder than people with virtually no involvement in religion (Claudio et al., 2002).

## 2.6 Research on Religious Coping and Health

The findings on a link between religiosity and physical/mental health have been debated. Although the majority of studies have indicated a positive impact of religiosity on health, some studies have not found a positive effect. In this section some of these studies will be reviewed.

Argyle and Beit-Hallahmi (1975) have described three possible relations between religiosity and well-being. First, religion can enhance the individual's well-being and happiness. Second, religion can be seen as a form of psychopathology or at least as a factor leading to unadjusted behaviour in the individuals. Third, emotionally unstable people can turn to religion in an attempt to rise above their problems. However, a growing body of literature points to significant relationships between various aspects of religion and various aspects of health (see George et al., 2002; Koenig et al., 2001).

A number of studies have shown that religion and spirituality has a positive effect on health on a wide variety of groups, including adjustment after a kidney transplant (Tix and Frazier, 1998), disabled people (Ilder & Kasl, 1997), Cancer (Thune-Boyle et al., 2005; Nairn & Merluzzi, 2003), depression (Loewenthal et al., 2001), bereavement (Anderson et al., 2005; Coleman et al., 2002), dialysis patients (Baldree et al., 1982) and medical ill hospitalized older patients (Koenig et al., 2004).

McCullough et al., (2000) conducted a meta-analytic review of 42 independent effect sizes of the association between religious involvement and all-cause mortality. Most of these studies used frequency of attendance at services and/or self-rated religiousness as the measure of religious involvement. In general, highly religious individuals had 29% higher odds of survival than less religious individuals. Moreover, they examined whether potential mediating and confounding variables could explain the relationship between religiousness and mortality. They considered the effects of health status, health behaviours (e.g., smoking, alcohol), social support, and socio-demographic variables. Studies that controlled for these variables demonstrated a

smaller, but still substantial, association between religious involvement and mortality. Similarly, Craigie et al., (1990) in another meta-analytic study found a health benefit for religion in peoples' lives in over 80% of published studies. They reported that the relationship between religious commitment and health was consistent across categories of age, sex, race, nationality, and religious affiliation.

Similarly, Hummer et al., (1999) collected survey data from a nationally representative sample of non-institutionalized adults. They examined the association between attendance at services and mortality over a 9-year period (1987–1995). Their study indicated that more frequent attendance was predictive of less risk of mortality, after controlling for a variety of social and psychological variables. Although health status, social ties, and health behaviours partially mediated the association, religion remained predictive of mortality after all controls. More specifically, after controlling for age, gender, race, education, income, physical activity, health status, health behaviours, and social ties, those who never attended services exhibited a 50% higher risk of mortality than those who attended most frequently. This relationship was generally consistent among all causes of mortality.

Bulman and Wortman (1977) studied the reactions of victims of severe spinal cord injuries, and found that the most common explanation for the event was to view it as part of God's plan. Pargament et al., (1995) also found that in several health-related situations, causal attributions to God were greater than to any other source including oneself. Similarly, in a study of temporarily and permanently disabled patients hospitalized in India, when permanently disabled patients were asked about the cause of their disability, they often mentioned Karma and God's will. Attributing cause to Karma and God's will tended to relate positively to psychological recovery. This was especially true for those who were permanently disabled (Dalal & Pande, 1988). Baldree et al., (1982) examined the coping behaviours of 35 dialysis patients (54% African American) who had been on haemodialysis for at least six months. The investigators found that prayer was the third most common coping behaviour on a checklist of 40 possible coping strategies.

O'Brien (1982) also conducted a three-year prospective study of 126 chronic haemodialysis patients. Perceptions of religion's usefulness in coping with end-stage

renal disease and dialysis were assessed. More than half (52.4%) indicated that religion was "usually" or "always" associated with their adjustment to haemodialysis. Three years after the baseline interview, 63 subjects were re-interviewed. More than one-quarter (27%) indicated that religion's importance for adjusting to dialysis had increased during the previous three years. Only 1 of 63 subjects had experienced a decline in religion's importance. Overall, 40% reported an increase use of religion in adjusting to illness, 44% reported no change, and 16% indicated a decrease. Researcher concluded that religion as a coping behaviour becomes increasingly important to haemodialysis patients over time.

Conway (1985) questioned 65 African American and white elderly women about how they had coped with stressful medical problems within the past year. Responding to a checklist of religious and nonreligious coping behaviours, 91% reported that they used prayer as a coping mechanism, 86% endorsed that one of the two most common cognitive methods for coping with stressful medical illness was "thinking of God or your religious beliefs." Similarly, Koenig et al., (1992) interviewed a sample of 850 older patients aged 65 or older. Twenty-one percent indicated that religion was the most important factor that enabled them to cope.

In a study of kidney transplantation, Vinyon (1995) examined the psychological adjustment and coping strategies in patients and their spouses. He used the Coping Strategies Inventory (CSI; Tobin et al., 1984) which includes subscales for cognitive restructuring, emotional expression, problem avoidance, social withdrawal, and reliance on God and religion. Reliance on God and religion was one of the most common coping sources for both patients and their spouses. Men and women spouses used this resource in dealing with transplant-related stress more than did transplant recipients. Investigators found that the reliance on God and religion in coping with the transplant was correlated among married couples.

Koenig et al., (1996) also surveyed 577 older adults who were hospitalized with acute medical illness. After controlling for age, race, sex, education, and hospital setting, they found that several religious measures were related to physical health and functional ability. They discovered that frequent church attendance was associated with better subjective health and no relationship was found between frequency of private

prayer, importance of religion and disability status. In their study, patients who coped by (a) understanding their illness to be a punishment or test from God, (b) understanding their health problems to be afflictions caused by demonic forces, or (c) pleading for direct intercession tended to have greater impairments in physical functioning and worse subjective health.

Musick and Strulowitz (1989) conducted a 7-year longitudinal study of 13017 community-dwelling adults, largely Christian Americans. Their research showed that involvement in religious activities at baseline predicted fewer depressive symptoms at follow-up, after controlling for demographic variables, baseline levels of depressive symptoms, physical health, and social support. Similarly, Tix and Frazier (1998) in a longitudinal study examined the relationship between religious coping and stressful life events among 174 chronically ill patients who were receiving kidney transplants. Subjects were surveyed three months after surgery and 12 months after surgery. Their research revealed that religious coping at first follow-up was related to greater life satisfaction at the first and second follow-up survey. Religious coping at three months after surgery, however, did not predict greater life satisfaction at the second when life satisfaction was controlled.

Koenig et al., (1992) examined the relationship between religious coping and depression among 850 older adults with chronic health problems and disability who were admitted to the medical and neurological services. Religious coping was inversely related to depression scores after researchers controlled for other variables. The relationship was strongest for patients with more severe disability. The above studies suggest that religious involvement may help to both prevent the onset of depression and speed recovery from depression when it occurs, and this effect is particularly important for persons with persistent and protected physical disability. In another study on 200 patients at a rehabilitation clinic, Idler and Kasl (1997) also found that, the more disabled a person was, the more likely he or she was to report seeking help from religion.

While most studies have demonstrated a positive relationship between religiosity/spirituality and well-being (e.g., Koenig, 2001, Pargament, 1997, 2005) some investigators have reported a negative association between religiosity and well-being.

For example, Bergin (1983) reported a meta-analysis of 24 studies that examined the relation between religiosity and psychopathology. Effect sizes ranged from-.32 to +.82, a small number (23%) involved a negative relationship between religiosity and mental health, whereas almost half (47%) exhibited a positive relationship. However, most effect sizes were small and non-significant. Bergin concluded that previous claims of religious beliefs exerting negative effects on mental health could not be sustained but noted the difficulties of assessing the relationship clearly, given diversity of measures of religion and of mental health involved.

Similarly, Pieper and Van-Uden (2005) in a recent study among community and residential patients in Netherlands reported that faith and worldwide supported between 39% (community) and 54% (residential) patients in emotionally coping with their problems. They found faith to have a negative influence, in particular in community patients.

Researchers have tried to explain the different findings on the relationship between religion/spirituality and health. For example, Brown (1994) argues that one account of low relationship between religiosity and well-being is that both religion and well-being are complex concepts and that the observed relationships may depend on how those variables are measured. He pointed out that difficulty is the problem of capturing the complexity of religiousness, and particularly the differences between intrinsic and extrinsic religion. It has been demonstrated that although religiousness and happiness are related, the relation may not be a simple one, since the empirical findings suggest that the nature of the relationship between well-being and religion may alter, not simply as the measure of religion change, but depending upon the way well-being itself is assessed and also the various populations studied. Furthermore, most studies in this area have used single-item measures of happiness, overall life satisfaction, or satisfaction with particular domain (e.g., Chamberlain & Zika, 1989; Lewis et al., 2005).

Pieper and Van Uden (2005) also discuss some methodological issues concerning to the differences in the results of the various studies on the relation between religion and well-being. They state that correlation can not establish the direction of the connection and also because, the ways in which religion, spirituality and mental health

are defined and measures are different, therefore, it is very difficult to compare the various studies. Moreover, intervening variables can have a confusing influence.

Studies carried out on different populations indicate that religion and spirituality has different impact on people across world (e.g., Pieper & Van-Uden, 2005). Indeed, there are studies indicating US people particularly, black people use religion more frequently to cope with their situation (e.g. Hoge, 1996), while in the Western European countries; people rely less on religion to cope with their problems (e.g., Coleman et al., 2002). There is also some evidence that Muslim people use religious beliefs and practice as a coping in their daily life more often (Loewenthal et al., 2001; Mehta, 1997).

## 2.7 Towards an Islamic Perspective on Religious Coping

In Islam, the focus is on the acceptance of submission to God's will, enduring the situation and God's trial. Many verses of the Qur'an emphasise faith and religious practices for coping with difficult situations (e.g., Qur'an Chapter 2 verses 212, 250). The concept of destiny also plays a very important role in the life of Muslim people. It is believed that this perception acts as a coping mechanism for people facing difficult situations (e.g., Mehta, 1997). Attribution to God appears to be very common among Muslims with regard to health-related situations and also loss of loved ones. Different Islamic forms of practice are considered as good tools for coping with life's stresses. Praying, fasting, remembering God, reading and reciting the Qur'an are the most important religious activities which people usually do to cope with difficulties. Some of the religious practices such daily prayer, fasting, pilgrims, and alms giving are obligatory for Muslim and Islamic teachings encourage Muslim to observe them. Religious teachings also encourage Muslims to perform their religious activities such as daily prayer as congregation and at Mosque. For example God says *"Establish prayer and pay your charity and bow with those that are bowing (2/43)."* Many verses of Qur'an also encourage people to remember God in heart and by reciting His names. God says: *"Those who believe and whose hearts are set at rest by the remembrance of Allah; now surely by Allah's remembrance are the hearts set at rest. (13:28). O you who believe! Seek assistance through patience and prayer; surely Allah is with the patient (2: 153)."*

In Islamic teachings, suffering is considered as God's trial. Muslim people are taught to endure and accept suffering. They feel that their suffering is the result of God's will; therefore, they would be able to accept it more easily. The Qur'an deals with such situations. God said in Qur'an "*Be sure We will test you with something of fear and hunger, some loss in goods or lives, but give glad tidings to those who are steadfast, who say when afflicted with calamity, 'To God we belong and to Him is our return. 'They are those on whom (descend) blessings from God and mercy and they are the ones that receive guidance*" (2:155). In many cases, human suffering is also looked upon as being a means to an end. According to Islamic teachings, when one is afflicted with pain they should not complain and instead endure illness patiently, as illness is a way of being forgiven for sins and balancing the rewards. Illness is also understood as a trial on people placed by God to test their level of piety, devotion and reliance. Some Islamic teachings expand this further that patience means to keep close to God and to accept calmly the trials He sends, without complaining or feeling sad. Some have also noted that people with ill-health are asked to pray for others, as they are regarded to be purer in God's sight; supplications from them are thought to be more likely accepted by God (Irfan, 2006).

## 2.8 Measurement of Religiosity/Spirituality

Since the 1960s, psychologists of religion have used the methodology of psychometrics to assess different ways in which a person may be religious. An example is the Religious Orientation Scale of Allport and Ross (1967) which measures how respondents stand on intrinsic and extrinsic religion as described by Allport.

Scholars agree that religion/spirituality is a multidimensional concept and that its various dimensions need to be assessed separately. Although there are many measures of various components of religious and spiritual beliefs and activities, the field lacks consensus on how many dimensions there are and what they are (George, et al., 2000). The researchers have developed many religion/spiritual measures to cover these multi facets of religiosity and spirituality.

Hill and Hood (1999) in their book reviewed many religious and spiritual measures. They classified the scales on different category including religious beliefs and practices, religious attitudes, religious orientation, religious development, religious

commitment and involvement, religious experience, religious/moral values, religious coping, spirituality and mysticism, God concept, religious fundamentalism, Divine intervention, and forgiveness. Furthermore, Hill and Pargament (2003) in their article have reviewed some of the measures of religiosity and spirituality functionally related to health. These scales have been developed to measure closeness to God, orienting, motivating forces, religious support, and religious and spiritual struggle. Slater, Hall and Edwards (2001) also described recent developments in the measurement of spirituality and religious constructs including a review of several new measures of spirituality. They advocated research that examines the convergence of multiple measures of spirituality and religiousness in accordance with theoretical frameworks.

The National Institute of Healthcare Research (NIHR) panel and Fetzer Institute (2003), reviewing the measurement of religion and spirituality, have also identified the conceptual domains and specific measures of religion and spirituality that are the most promising for understanding the links between spirituality and health. The NIHR panel identified 10 key domains of religion and spirituality for which there are at least minimal evidence of links to health. These domains are the follows: (1) religious/spiritual preference or affiliation; (2) religious/spiritual history; (3) religious/spiritual participation; (4) religious/spiritual private practices; (5) religious/spiritual support; (6) religious/spiritual coping; (7) religious/spiritual beliefs and values; (8) religious/spiritual commitment; (9) religious/spiritual motivation for regulating and reconciling relationships; (10) religious/spiritual experiences.

The National Institute on Aging (NIA) and the Fetzer panel reviewed more than 200 measures in the ten domains it identified. The major product produced by the panel was a recommended battery of measures in each of the eight domains. Overall, however, the panel was disappointed with the measurement tools available. Many were single-item measures. Most of them had little if any psychometric assessment, lacking reliability and validity information. Few had been used in a sufficient number of studies to generate a knowledge base about how the measure operated across settings and samples. Thus, the panel's report highlighted the need for the development and evaluation of measures of religiousness/spirituality (Fetzer Institute/NIA, 2003).

It is believed that the measurement tools available were not based on the definitions of spirituality and religion provided by the NIHR panel. Thus, there are major disjunctions between the conceptual definitions proposed here and available measures. First and most important, available measures do not directly inquire about individuals' conceptions or experiences with *the sacred.* Given that the sacred is the core requirement of the definitions of spirituality and religion proposed above, this is a substantial problem (George et al., 2000).

It is believed that the issue of the sacred is remarkably absent from extant measures. If there is a desire to link the conceptual definitions offered here with operationalization, research is needed to map the links between extant measures and social and personal meanings of the sacred. Furthermore, fewer than 10% of the measures reviewed by the NIA/Fetzer panel included any mention of spirituality; instead they were phrased in terms of religion. And, significantly, those measures that incorporate the term "spirituality" link it with religion (Fetzer Institute/NIA, 2003).

## 2.9 Conclusions

The concepts of religion and spirituality have been defined in several ways. Religion is defined as a more organized system of beliefs, whereas spirituality is defined as a quest for understanding life's meaning. Religiosity and spirituality have been considered as potential beneficial factors on health behaviour, in providing a sense of coherence and meaning, and in enhancing social support. It has been revealed that the process of coping involves different styles, resources and factors. Furthermore, research shows that religiosity and spirituality has an effect on physical and mental health. Finally, the measurement of religiosity and spirituality was briefly discussed.

# Chapter Three: Developing a Religious Coping Scale for an Iranian Sample

## 3.1 Chapter Overview and Introduction

A growing number of studies have been conducted on the effects of religiosity and spirituality in coping with health problems and adjustment with difficult situations. Most these studies have carried out in countries with predominantly Judaeo/Christian religions and very little is known about the role of religion and spirituality on coping of other religions particularly Muslim. This research was carried out due to the lack of research on developing an appropriate measure to assess religious coping in Muslim people. The development of a new measure of religious coping may contribute to the current field by facilitating further research that can ultimately improve our understanding of religious coping methods Muslim people use to cope with stressful situations. In this chapter, the rationale of the study, the theoretical background of religious coping, research on religious coping in general and within Muslims will be reviewed. Furthermore, three interviews conducted on disabled war veterans will be presented followed by an exploratory study on religious coping on a group of undergraduate students. Moreover, in this chapter the psychometric properties of the religious coping scale, relationship between different styles of religious coping and psychological well-being, and gender differences on religious coping will be presented. Finally, the results of the current study will be discussed and some conclusions will be drawn.

## 3.2 Rationale for the Development of Religious Coping Scale

Nearly all existing religious/spiritual measures have been developed in the Western countries and are based on the Judaeo/Christian beliefs. It is believed that a similar Western bias exists in many of the current measurement scales (Murphy, 1982). For example, Hill and Hood (1999) state that the Psychology of Religion has a definite Western, primarily Christian, bias. According to them, these measures of religious belief, by representing the field as a whole, also represent that bias. Pargament (1999) also states that "if we have a measure that we use cross-culturally, then we sacrifice specificity for what makes a particular tradition unique" (p. 256).

Although the followers of the monotheistic religions such as Judaism, Christianity, and Islam share basic beliefs on God, hereafter and eternity, nevertheless each one has their own beliefs and practices. However, little information is available about the use of religious/spiritual coping strategies in non-Judaeo/Christian populations, especially Muslims. The researchers who have investigated religious coping strategies among Muslim people have used the religious coping scales developed based on a Judaeo-Christian background (see Ai et al., 2005). As noted already, these measures may not suitable for Muslim people. Therefore, it is important to use a measure developed on Islamic religious beliefs and practice to assess the religious coping of this population.

### 3.3 Religious Coping

Religious coping involves the use of cognitive or behavioural strategies that are based on religious beliefs or practices to help manage emotional stress or physical discomfort (Koenig, 1994). Religious coping comprises the various ways people use their religion and faith to manage stressful situations. Pargament has been the major researcher in the field of religious coping and since the publication of his book "the Psychology of Religion and Coping"; many studies have been conducted on the impact of religious coping on well-being. Pargament (1997) describes religion as "the search for significance in ways related to the sacred" (p. 32) and coping as "the search for significance in times of stress" (p. 90). Central to his approach is the diversity of the religion-coping connection: "the many faces of religion in coping" (p. 163).

Pargament et al., (1990) have identified three possible interactions between religiosity and coping. First, religion can influence all parts of the coping process (appraisal, coping activities, results, assistance, and motivation). Second, religion can contribute to the coping process by preventing certain events from happening (through a beneficiary life style), and by influencing perception (attribution of meaning and the feeling of control). Third, religion can be the resultant of the coping process through religious attributes.

In his original study, Pargament (1988) referred to three ways in which people can deal with issues of responsibility and control in religious coping activities: Collaborative, self-directing, and deferring. Each of these styles differs in the amount of activity and responsibility put forth by the individual. In the self-directing style, it is the

individual's responsibility to solve problems and make efforts to accomplish this. According to Pargament (1988), the religious frame of reference is hardly used in this coping method; compared to the other two styles there is a much looser connection with traditional religiousness.

In the deferring style, individuals defer the responsibility of problem-solving to God and they wait for solutions to emerge through God's active efforts. Research conducted shows that this coping style is connected with a religious orientation in which external rules, convictions and authority are looked for in order to satisfy personal needs. Pargament consider the deferring style to be dysfunctional (Pargament, 1988).

In the collaborative style, responsibility for the problem-solving process is held jointly by the individual and God. Both are working together to solve problems. Pargament states that the collaborative style is the most common religious coping style. Here, neither the individual nor God plays a passive role in the problem solving process. Research carried out by Pargament et al., (1988) indicates that the collaborative method associates with an individual's religious orientation characterised by a personal relation to God, and in which religion is the paramount and motivating life force.

Pargament et al. (1990) have also postulated that religious coping is a multidimensional construct; including its emotional, cognitive, social, and behavioural dimensions. They have identified six dimensions of religious coping: (a) Spiritually Based, the degree to which one copes through a personal relationship or connection with God and one's faith (b) Good Deeds, the degree to which one copes by committing oneself to living a more religious life (c) Religious Avoidance, the degree to which one copes by using religious behaviour or God to divert attention away from the stressor (d) Discontent, the degree to which one copes by expressing anger at God or one's religious community (e) Interpersonal Religious Support, the degree to which one copes by receiving assistance from one's religious community and (f) Pleading, the degree to which one copes by questioning or bargaining with God, including requests for miracles. The result of this work, the Religious Coping Activities Scale (RCAS), provides a more valid representation of religious coping than one-dimensional measures.

Subsequently, Pargament et al., (1998) identified two patterns of religious coping including positive and negative with potentially implications for health. The pattern of positive religious coping methods is an expression of a sense of spirituality, a secure relationship with God, a belief that there is meaning to be found in life, and a sense of spiritual connectedness with others. According to them, several forms of religious coping would be a part of this pattern: Benevolent religious reappraisal, collaborative religious coping, seeking spiritual support, spiritual connection, religious purification, seeking help from clergy or members, religious helping, and religious forgiveness. In contrast, they believed that the negative religious coping pattern is an expression of a less secure relationship with God, a tenuous and ominous view of world, and a religious struggle in the search for significance. According to them this pattern would be defined by a very different set of religious coping methods: punitive religious reappraisals, demonic religious reappraisals, reappraisals of God's power, spiritual discontent, self-directing religious coping, and interpersonal religious discontent.

Other researchers have also addressed the role of religion and spirituality on well-being. For example, Daaleman et al. (2001) summarised the effectiveness of religious coping activities as follows: religious coping strategies establish social integration and support, establish a personal relationship to a divine other, provide systems of meaning and existential coherence; and finally they promote specific patterns of religious activity and personal life style. Thus, social, effective, cognitive and behavioural aspects are involved.

### 3.4 Research on Religious Coping

There is a large body of empirical evidence that religious/spiritual methods of coping can affect the psychological, social, and physical adjustment of people in crisis (e.g., Koenig et al., 2004; Loewenthal et al., 2001; Nairn & Merluzzi, 2003; Pargamen et al., 2005). Much research on religious coping with adversity is based on Pargament's theory and methods. Pargament and Koenig (1997) argued that methods of religious coping do not duplicate those of nonreligious coping and religious coping measures continue to predict significant portions of variance in outcomes to life stressors after removing the effects of nonreligious coping measures.

Several studies have shown that measures of specific methods of religious/spiritual coping continue to predict outcomes to life stressors significantly, even after removing the effects of global religious measures. Pargament (1999) argued that for the resolution of specific life events situation-specific measures of religiousness should be stronger predictors than generalized measures of religiousness. He proposed a model of religious coping efforts as mediators of the relationship between general religious orientations and the outcomes of specific life situations. Most research has concluded that both general religiousness and religious coping contributed significantly and uniquely to the variance in well-being, and that neither was totally eliminated by the other (e.g., Fry, 2000; McIntosh et al., 1992; Pargament et al., 2005). But religious coping has been found more important (Koenig et al., 2001; Pargament et al., 1998; Tix & Frazier, 1998).

There have been some studies on the association of different styles of religious coping with psychological well-being (see Pargament, 1988; Alma et al., 2003). With regard to the deferring style, Pargament et al., (1988) found an association between problem-solving approach with a lower sense of personal control, lower self-esteem, less active problem-solving skills, less tolerance for individual differences, and a greater sense of control by chance. Pieper and Van-Uden (2005) in a study on a group of psychiatric patients in Netherland found a less frequent self-directing style in intrinsic believers, in patients who had a positive relationship with God, in patients who devoted a great deal of time to private religious activities and in the elderly. On the other hand the deferring style was seen more frequently in intrinsic believers and in patients who had a positive relationship with God.

### 3.5 Research on Religious Coping within the Muslim Context

Several studies on religious coping among Muslim populations have been reported (e.g., Husain, 1998; Loewenthal et al., 2001). In one study, Kesselring et al. (1986) compared the use of religious coping between Egyptian and Swedish people. They reported that 92% of Egyptian patients with cancer voiced a belief that God will help them, in contrast to only 37% of the Swiss patients faced with the same disease. Similarly, Mehta (1997) in a qualitative study on elderly Malay Muslims reported that the elderly attributed their ageing process and its accompanying decrements to the Will

of God. And attitude of resignation and acceptance therefore followed. In Mehta's study, the belief in fate was mentioned by more than half of respondents and surfaced during some focus group discussions. According to Mehta, fate is both an explanation as well as a coping mechanism which helps the elderly to accept difficult situations. Some of her respondents also mentioned reciting verses of Koran to manage the pain of their headache.

In another qualitative study on Muslim women with depression, Hussain and Cochrane (2003) found that coping through religion was the most common strategy, where the women prayed for help. Many Muslim women read Prayer and verses from the Quran relating specifically to asking for protection from illness and symptoms. Some of the Muslim women also simply resumed the obligatory five daily prayers that they had either stopped performing or did not usually read–feeling that if they tried to be better Muslims, the praying would indicate a 'sincere' need for help. The expectation of these religious requests was not necessarily to be cured but simply that they would be eased of the burden of the symptoms that were destined / 'written' to occur in their lives.

Muslims reported that regular prayer is experienced as beneficial psychologically (Cinnirella & Loewenthal, 1999), and may prefer to try prayer and other religious means to alleviate distress (Husain, 1998). Loewenthal et al. (2001) also explored how the different kinds of religious activity and other form of interventions are believed to be effective in coping with depression among 282 Christians, Jews, Muslims, Hindus, and other religion or non-religion followers. The researchers reported that the Muslims believed more strongly than other faith groups in the efficacy of every form of religious activity in coping with depression. The Christians thought that both prayer and others praying for the sufferer were more effective than did most other groups. The Jewish endorsed the effectiveness of maintaining religious practice, consulting a religious leader, and other's praying for the sufferer, more strongly than did most other groups.

## 3.6 Measurement of Religious/Spiritual Coping

### *3.6.1 Introduction*

Since Allport (1967) conceptualized his theory on religion and developed a Religious Orientation Scale (ROS-Allport & Ross, 1967) for measuring religiosity, several questionnaires have been developed to measure religiosity and spirituality. Most studies have used the global religious indicators such as attending places of worship and reading scripture to assess religious coping. But, Pargament et al., (1998) argue that the field needs to go beyond global measures of religion and spirituality into the specific ways that religion expresses itself. Subsequently, Pargament has developed several scales to address the limitation of existing religious coping measures. Pargament's scale of religious coping has been used in many studies investigating the connection between religious coping and well-being (see, Hill & Pargament, 2003; Koenig, 2003; Nairn & Merluzzi, 2003).

### *3.6.2 Styles of Religious Problem Solving (SRPS)*

Pargament et al. (1988) developed the SRPS to measure religious styles of attaining control in the problem-solving process. The items of the SRPS cover domains of the problem-solving process: problem definition, generation of alternative solutions, selection of a solution, implementation of the solution, conclusion and redefinition of the problem. This measure consisted of 18 items with statements such as, 'Together, God and I put my plans into action,' or 'when I have difficulty I decide what it means by myself without help from God.' The questions were presented in a five point scale ranging from 'never' (1) to 'always' (5). The reliability and validity of the three scales has been reported to be acceptable (Pargament et al., 1988). The scales have been used in several studies. It is important to note that even though the three types of coping contained in the SRPS are conceptually distinct, empirical studies using the measure have found significant overlap between the deferring and collaborative styles (Bickel et al., 1998; Schafer & Groush, 1991).

In two studies in the Netherlands, Alma et al., (2005), and Pieper and Van-Uden (2005) applied the Styles of Religious Coping scale among members of local congregations of Protestant churches and also patients in a Dutch Reformed psychiatric

hospital. They reported a three factors solution including collaborative, self-directing, and deferring style similar to the original study (Pargament, 1988). They also reported similar findings regarding to the association between collaboration and deferring scales with Pargament's results. In their study, people who used a collaborative style were more closely involved in religious issues. In general, findings on religious coping styles in the Netherlands were very similar to Pargament's findings.

### *3.6.3 Religious Coping Activities Scale (RCA)*

In a subsequent study, Pargament et al. (1990) took a less theory-based, more inductive approach by attempting to measure a wider range of religious/spiritual coping methods. The items were developed through a literature review and through interviews with clergy and adults who were dealing with various crises. The items were factor analyzed in a sample of more than 500 members of mainline Protestant and Roman Catholic churches, with respondents facing a variety of life crises. The resulting factors were: spiritually-based coping (through the relationship with God, problems are reframed, limits of control are accepted, and guidance and reassurance are sought), good deeds (efforts to live a better, more religiously integrated life), discontent (expressions of anger, mistrust, and distance to God and the congregation), religious support (attempts to obtain help from the clergy or congregation members), pleading (attempts to bargain with God or obtain a miracle), and religious avoidance (religious activities to distract the individual from problems). In several studies, RCA scales have emerged as predictors of emotion, depression, anxiety, and religious outcomes among people facing various crises (Pargament, 1997).

### 3.6.4 *The RCOPE*

More recently, Pargament et al. (1998) developed the RCOPE, a theoretically based measure that assesses the full range of religious coping strategies. The religious coping methods encompass active, passive, and interactive coping methods. They include problem-focused and emotional-focused approach. They also cover cognitive, behavioural, interpersonal, and spiritual domains. The authors discern five main areas, connected to five religious functions: religious coping methods for finding meaning; for gaining control; for gaining comfort and closeness to God; for gaining intimacy with others and closeness to God; and for achieving a transformation of life. The three

religious problem-solving styles are part of the gaining control domain. Two additional styles complete this domain. The first one is pleading for direct intervention. This means seeking control indirectly by pleading to God for a miracle or divine intervention. The second one is active religious surrender, an active handing over to God. This means that individuals first try their best but at a certain point they leave the rest to God.

The RCOPE can be divided in two parts: positive and negative religious coping. There are 5-item and 3-item versions that assess 17 religious/spiritual coping methods. Examples of the measures include: benevolent religious appraisals, religious forgiving, spiritual discontent, religious helping, the search for spiritual connection and anger at God. These coping methods are targeted variously to the search for meaning, intimacy, self-development, comfort, and spirituality. Preliminary factor analytic results with college students and medically ill patients are promising. The scales also correlated with a variety of measures of stress-related outcomes, including physical health, mental health and spiritual outcomes.

On the positive side, the specific religious/spiritual coping methods approach appears to yield stronger relationships with outcomes than the global approach to religious measurement. Moreover, by using these measures, it is easier to understand how religion may affect health because the function of religion is, to some extent, "built into" the items. Unfortunately, this approach is lengthy. Thus, unless the researcher chooses to focus on one particular type or set of religious/ spiritual coping methods, this approach is not feasible for use in large general purpose surveys.

### *3.6.5 Brief RCOPE*

Pargament et al., (2000) developed a subscale by selecting 21 items from the RCOPE dimensions discussed earlier. The development of this measure was based on their conceptualization of positive and negative religious coping. The items were administered to a community sample of family, friends, and acquaintances of victims of the Oklahoma City bombing. The factor analysis yielded 2 factors: a positive religious/spiritual coping factor that reflects benevolent religious involvement in the search for significance (12 items), and a negative factor that reflects religious struggle in

coping (8 items). The subscales were internally consistent and evidence was found of discriminant and criterion-related validity using measures of stress-related growth, post-traumatic stress disorder symptoms, callousness to others and religious outcomes.

### 3.6.6 Religion Subscale of the COPE

Carver et al., (1989) developed a 4-item religious/spiritual coping subscale in their larger measure of coping. There is a situational and dispositional version of the scale. Individuals respond to the items in terms of what they generally do when they face stressors or what they do when they face a particular stressor. The subscale seems to tap into an emotion focused spiritually-based coping method. The 4 items are: "I seek God's help." "I put my trust in God." "I try to find comfort in religion" and "I pray more than usual." The subscale is internally consistent and stable. It has been associated with optimism and a monitoring information processing style (Carver et al. 1989).

### 3.6.7 Religious Coping Index (RCI)

The RCI (Koenig, 1994), a three-item questionnaire, which was designed to measure the extent to which people relied on religious activities and beliefs and their perceived helpfulness as an aid for coping. It was developed for use with persons with medical illness, including mental illness. The three items involve the spontaneous religious coping (How do you manage to cope with your situation), self-rated religious coping (Do your religious beliefs or activities help you at all to cope with or handle your situation?) and observer-rated religiosity based on the above questions on the same scale. The scale ranging from 0 to 10, where 0 indicates that religion is not at all helpful and 10 indicates that it is the most important things that keeps an individual going. Scores on each of the three items were summed for a total score on religious coping ranging from 1 to 30 (Koenig, 1994). This scale has been used in some studies in the health context (e.g., Abernethy et al., 2002; Koenig et al., 1992). However, researchers have not reported any information on the psychometric properties of the RCI.

### *3.6.8 Ways of Religious Coping Scale* (WORCS)

Boudreaux et al., (1995) created a 40-item scale that taps into a variety of religious/ spiritual methods of coping with stress (e.g., saying prayers, confessing, obtaining help from clergy, thinking about Jesus as my friend, trying to be less sinful). Factor analysis revealed 2 interpretable factors: an internal/ private factor of

personal/cognitive religious coping methods and an external/social factor of religious behaviours and social activities. The scales are easy to read and relate differentially to the Religious Coping Activities scales. No data are available on the relationships of these scales to measures of health status. The scales also lack a theoretical underpinning.

The religious coping scales reviewed in this chapter and other existing religiosity and spirituality measures have been developed based on Judeo-Christian beliefs. Therefore, as stated earlier in this chapter, there is a lack of research on conceptualization and measurement of other religious faiths. We know very little about how members of other religions for example Muslims use religious beliefs and practice to cope with their problems. This research attempts to highlight the use of religious coping within an Islamic context.

## 3.7 Religious Coping in Islamic Context

There is an emphasis within Islamic literature on religious beliefs and practices being used as resources for dealing with life difficulties. Islamic teachings encourage people to be patient, to perform prayer, and trust in God and turning to God for guidance and in times of need and for guidance. Islamic beliefs also give individuals a meaningful interpretation of difficulties events. The Qur'an emphasizes clearly that the difficulties in this world are to test the believer and also asking people to have patience in facing their problems. For example, God says "*We try you by means of danger, and hunger, and loss of worldly goods, of lives and of [labour's] fruits, But give glad tidings unto those who are patient in adversity" (2:155)*. Therefore, according to the religious teachings, the negative events have a purpose and people are required to be patient to achieve the spiritual growth. There are many verses of Quran and also other sayings from the Prophet asking Muslims to have patience on difficulties. For example God says: "*You who have attained to faith! Seek aid in steadfast patience and prayer: for, behold, God is with those who are patient in adversity" (2:153).*

Various Islamic religious sources particularly in the Quran and traditions give certain recommendations related to feeling better and coping with difficulties. For example, God says," *those who believe, and whose hearts find their rest in the remembrance of God - for, verily, in the remembrance of God [men's] hearts do find*

*their rest" (Quran 13:12)*. Furthermore, there are many recommendations in the Islamic teachings encouraging believers to use certain religious beliefs and activities for coping with difficult situations. Some of these religious activities involve specific prayers, fasting and reciting some verses of the Quran.

## 3.8 Study on Iranian sample

### 3.8.1 Purpose of the Study

The primary aim of this study was to develop a reliable and valid measure of religious coping that assesses a wide range of religious coping strategies used by the Iranians. The second purpose of the current study was to determine whether religious coping strategies are associated with the psychological well-being of Iranian students, as has been found in prior research with other religious traditions.

### 3.8.2 Pilot Interview Study

Three disabled veterans were interviewed to understand how they coped with their physical disability and also to identify which strategies they used to cope with physical and traumatic problems. The interviews were carried out by a qualified clinical psychologist using an open-ended question procedure to elicit information about the coping methods that participants used to cope with their physical and traumatic problems. They were asked two open ended questions regarding their coping. The questions were: (a) "how do you cope with your physical problem?" (b) "What methods do you use to cope with your physical problem?" The interview data was taped and then transcribed by a research assistant. In this section the interview results will be presented. Participants were assured that their confidentiality would be maintained; therefore, the names reported below are not the real names of the participants.

Amir was a forty year-old married male. As a veteran he took part in the war voluntarily and lost both his legs in battle. He was given 70% disability from the Foundation War Veterans of Iran and was a pensioner. When he was asked how he dealt with his disability and his situation, he responded "*since my situation was God's work, it is easy to bear the difficulties, you know, we are Muslim and believe that there will be hereafter and anybody will face the consequences of his/her actions, since, my intention*

*to take part in war was for God, so I bear, and difficulties became easy for me to bear".* When the participant was asked what religious activities helped him to cope with his problem; he responded "*by performing prayer, reading Dua (prayer) and reciting Quran, I try to be close to God and get help from Him.*"

Hassan, a 44 year-old pensioner and veteran with five children took part voluntarily and suffered injuries to his head, legs and stomach and obtained a 70% disability. The participant responded to the above questions as follows; "*I sometimes have much pain so I take pain killer medicines, sometimes do some kind of exercise, I believe that every one will die someday and should answer for his/her actions, so I don't get upset. I have special respect to Hazrate Fatemeh (Prophet Muhammad's daughter) who gave me shifa (miracle) on my hand. Every time I am faced with a problem I return to her. I recite some verses of Quran such as Yasin and Alrahma (two chapters of Quran), Joshan Kabir (a recommended prayer) and other prayer (Dua) for not to be absorbed into the material world's problems.*"

Reza, another married veteran aged 37 years old pensioner with two children had injuries to his head, face, hand and legs. In answering the above questions he said "*it is long time I am living with this situation, I sometimes take pain killers to relieve my pain, I attend Yoga classes, people get relax there.*" He added "*if people had strong faith, it would make bearing pain and difficulties easier, I myself always see Hazrate Ali* (the first Imam of Shia Muslim and the cousin of the Prophet) *as my example and every time I've got pain, remember him. I try to ignore my physical problems since my purpose was clear and God may accept my efforts. I believe that God would not leave alone His servants in their problems and if one faced trouble, God would help in some other area of their life.*" In responding to the second question he said, *I intercede to Prophet and Imams, say prayer (Dua) and read Quran.*

### 3.8.3 Exploratory Study on Religious Coping

To understand which type of coping methods Iranians used when faced with a stressful situation, forty six students were asked to respond to an open-ended question regarding coping in general. They were asked to describe a stressful event they had faced during the last two years and then rate the stressful experiences on a four-point

scale. They were also asked to determine how they had coped with their situation. The item "*what did help you to cope with your situation when you experienced stress?*" was used to identify which coping strategies they had used to manage their problems. The students described various ways of coping in answering to the above question including both non-religious and religious coping strategies. In responding to this question, 37% of the participants stated that a religious belief or practice helped them to cope with their difficult situation. The most frequent religious coping strategies mentioned were trust in God, prayer, remembering God, reciting verses of the Quran, reading certain prayers, belief in destiny and other religious coping strategies. They also described some non-religious coping strategies such as talking with family members and friends, engaging in other activities, crying, and trying not to think about the problem.

### 3.8.4 Pilot Questionnaire Study

The initial Religious Coping Scale was used on a number of people (n = 25) to identify potential problems including wording of scale and the appropriateness of items. The purpose of this was to pilot the questionnaire and to ensure comprehensibility of measure. In addition to revising the wordings, some of the items were deleted. Specifically, care was taken to avoid items that were exceptionally lengthy, double-barrelled, or had ambiguous pronoun references. The items that were modified and/or retained had good face validity, and reflected the purpose of the scale.

Based on the results from pilot study including the qualitative interviews and questionnaire study and on the relevant items from existing questionnaire measures of religious coping [e.g., RCOPE developed by Pargament et al. (2000)], a 25-item scale was developed.

### 3.8.5 Development of the Religious Coping Scale

The religious coping measure included 25 items scored on a five-point Likert scale from 0 (not at all) to 4 (a great deal). To develop this scale some items which appear to be applicable for Muslims were adapted from Pargament's (2000) scale (RCOPE). The items which were adapted from Pargament's scale have been reformulated to be applicable to Muslims' religious beliefs. For example God's plan in Pargament's scale was changed to God's will. In addition, new items were incorporated

that reflect Islamic religious beliefs (e.g. viewed my situation as a trial from God). Furthermore, since religious practice plays a significant role in Islamic faith, some items relevant to practices were included in this measure (e.g., attended pilgrimage when I was in difficulties). Those religious activities were selected that Muslims use very often to cope with stressful life events. These items were chosen based on interviews and pilot study conducted with Iranian Muslims (see this Chapter, sections 3.4.2. and 3.4.3. An attempt was also made to include recommended religious activities such as reading certain prayers rather than obligatory religious practices such as daily prayers in this scale. Indeed, Muslims usually seek help from these additional kinds of religious activities when they experience difficulties. To validate the external validity of the scale, two Iranian Theological scholars were asked to check the content of the items in the scale.

An attempt was also make to include a wide range of religious beliefs and practices that Muslim people used to cope in their daily life. The religious coping methods were defined based on different functions of religion that seem to be important for Muslims. The religious functions include positive and negative patterns of religiosity. Negative religious coping was included due to previous research findings suggesting a positive relationship between dysfunctional forms of religious coping and mental health problems. The following aspects have been included in this scale: religious practice (6 items), religious benevolent reappraisal (6 items), negative religious coping (4 items), ignoring religion (3 items), passive and active religious coping strategies (3 item each).

### 3.8.6 Participants and procedures

A total of one hundred and eighty five undergraduate students completed the questionnaires. They were recruited from the various Departments of the University of Shiraz including Psychology, Education, Engineering, and Theology. The researcher's colleagues at the University requested their students to take part in this study. Students volunteered to take part in this study and completed the research questionnaires. Students who agreed to participate were asked to read and sign the Consent Form. The researcher collected the materials when the students completed the questionnaires. The sample comprised 63% women and 37% men. Ninety four percent of the respondents

were single. The participants' age ranged from 18 to 25 with a mean age of 19.9 (S.D = 1.37).

### 3.8.7 Additional Measures

*General Health Questionnaire (GHQ- Goldberg & Williams, 1988):* The GHQ was designed as a reliable screening instrument for psychological distress. The Farsi 12-item version of GHQ was used to measure depression and psychiatric morbidity. This scale was found to have a good reliability and validity for the Iranians (Montazeri et al., 2001). When the psychometric properties of this scale were examined in this research, it had a good reliability and validity, the Cronbach alpha of .86.

*Stressful Experience:* The participants were also asked to describe an event in which they experienced stress during the last two years. These events can be the death or illness of family members, a romantic breakdown, financial problems and academic problems. Then they were asked to rate the degree of stressfulness of their experience on a 4-point likert scale from a little negative (1) to extremely negative (4). The mean score of stressful experience for the sample was 3.14.

*The Spiritual Scale (King, Speck & Thomas, 2001):* The Spiritual scale was used to assess the convergent validity of the new scale. The scale is composed of six items on a 10-point scale. The authors claim that this scale was designed specifically to assess a wide range of spiritual beliefs not specific to any religion. This measure had been validated in previous research the author conducted and it was found to have a good reliability and validity for Iranian people (see Chapter 4, section 5.3.2).

*Demographic Characteristics*: The participants provided information regarding their age, gender, marital status, and education background.

### 3.8.8 Data Analysis

All quantitative data were analysed using SPSS Version 14 for Windows. Data were analysed for each of the main research aims.

Pearson's product-moment correlation coefficients were computed to examine the correlation between the scales religious coping measure and also between the scales of religious coping and mental health measure. The internal consistency was examined by computing Cronbach's alpha for each of the six dimensions. Analyses of gender differences on the scales of religious coping were performed using the independent t-test. The construct validity of the scale was determined using the following analyses: (1) factor analysis; (2) using concurrent validity (correlational analyses between different scales of religious coping with other religious/spiritual measures assessing similar constructs); (3) and using known group approach (comparing the scores of Theology students with non-Theology students). Exploratory factor analysis was carried out to examine the structure of the religious coping scale through a principle component analysis. To determine the number of factors to be extracted, the value of the eigenvalues was employed. Eigen values refer to the amount of variance which is accounted for by a factor; these values should be greater than or equal to one. Once the number of factors to be extracted is determined, factors then typically need to be rotated to make them more interpretable. It is usual to regard factor loadings as high if they are greater than 0.60 and moderately high if they are above 0.30. Other loadings can be ignored (Kline, 1994). The sample size in the current study seems to be adequate for the purpose of this analysis. Kass and Tinsley (1979) recommended between 5 and 10 participants per variables as a general guideline. Furthermore, some authors argue that if a factor has four or more loading greater than .6 then it is reliable regardless of sample size (Guadagnoli & Velicer, 1988).

## 3.9 Results

### *3.9.1 Factor Analysis*

Factor analysis with principle component analysis was used to extract factors from the correlation matrix. Initial thirty items were subjected to the factor analysis. Only items with loadings equal to or greater than 0.3 were retained for further analysis. This analysis emerged 6 factors with eigenvalues greater than 1.0. These factors were then rotated using varimax rotation and found to explain 64% of the variance in scores. The factors with their corresponding items and loadings can be seen in Table 1. Five items were loaded on more then one factors; therefore, these items were removed. Of

the 25 statements retained, 6 items loaded on Factor 1, 6 items loaded on Factor 2, four items loaded on Factor 3, three items loaded on Factor 4, three items loaded on Factor 5, and three items loaded on factor 6. Furthermore, factor 1 had an eigenvalue of 9.0, accounting 31% of the variance; factor 2 had eigenvalue of 3.4, accounting 11.9% of variance; factor 3 had eigenvalue of 2.07, accounting 7.1% of variance; factor 4 had eigenvalue of 1.4, accounting of 5.0% of variance; factor 5 and 6 had eigenvalue of 1.3 and 1.2, accounting for variances of 4.6% and 4.1% respectively. As can be see in table there were not cross loadings between the subscales.

The six items that loaded on factor 1 reflected a focus on religious deeds and practice (e.g., sought comfort and guidance by reading the Quran). Another six items that loaded on factor 2 was related to the benevolent reappraisal (e.g., saw my situation as God's will). The third factor highlighted negative ways of coping (e.g., expressed anger at God for letting this problem happen). The fourth factor reflected the ignorance of God (e.g., made decisions about what to do without seeking God's help). The items of fifth factor was relevant to the passive way of coping (e.g., didn't try to do much; just assumed God would handle it). Finally, the sixth factor included the content of active coping (e.g., did what I could and turned the rest over to God). The findings of this study showed clear and separate factors for various dimensions of religious coping strategies.

Table 1: Factor Analysis of Religious Coping Measure

| Scale items | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| ***Factor 1 'Religious Practice'*** (α = .89) | | | | | | |
| 9. Sought tranquillity by remembrance of God | **.82** | .15 | -.00 | -.07 | .01 | .06 |
| 17. Appealed to Prophets and Imams | **.80** | .10 | -.12 | .04 | .09 | .10 |
| 8. Sought comfort and guidance by reading the Quran | .77 | .20 | -.10 | -.14 | -.60 | .12 |
| 10. Attended pilgrimage when I felt upset | **.76** | -.07 | -.07 | -.04 | .04 | .22 |
| 11. Read certain prayers | **.75** | .08 | -.13 | -.06 | .06 | .15 |
| 7. Sought help with prayer. | **.69** | .26 | -.13 | -.24 | -.08 | .05 |
| ***Factor 2 'Benevolent* Reappraisal'** (α = .79) | | | | | | |
| 1. Saw my situation as God's will | -.03 | **.74** | -.05 | -.01 | .27 | .19 |
| 2. Viewed my situation as a trial from God | .16 | **.71** | -.17 | -.17 | .18 | .07 |
| 18. My suffering was purification of My sins | .23 | **.59** | -.00 | .01 | -.11 | -.01 |
| 19. Sought patience because God is with Those who patiently persevere | .18 | **.57** | -.07 | .08 | .05 | .00 |
| 4. Suffering and difficulties strengthened My faith | .12 | **.55** | -.02 | .02 | -.03 | .40 |
| 3. Thought suffering may bring me closer to God | .47 | **.52** | -.02 | -.14 | -.22 | .01 |
| ***Factor 3 'Negative'*** (α = .79) | | | | | | |
| 16. Felt God had forgotten me (Wondered if God really cares) | -.12 | -.11 | **.77** | .19 | .05 | -.09 |
| 5. I expressed anger at God for letting this problem happened | -.11 | -.15 | **.76** | .11 | .05 | -.06 |
| 24. I was disappointed with God's grace and mercy. | -.11 | .01 | **.73** | .09 | .16 | -.26 |
| 21. Realized that God cannot answer all of my prayers | -.05 | .05 | **.64** | .17 | .12 | .06 |

Table 2: (continued)

| Factor | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| ***Factor 4 'Ignoring'*** (α = .68) | | | | | | |
| 12. Tried to deal with my situation without relying on God | -.01 | -.03 | .23 | **.81** | .06 | -.06 |
| 22. Made decisions about what to do without seeking God's help | -.08 | .05 | .18 | **.71** | .07 | -.36 |
| 13. Stopped performing my obligatory religious duties | -.26 | -.25 | .27 | **.59** | .10 | .25 |
| ***Factor 5 'Passive'*** (α = .72) | | | | | | |
| 14. Didn't try to do much; just assumed God would handle it | .09 | .09 | .08 | .24 | **.77** | -.10 |
| 23. Was destined to have this situation, so I didn't try to change it | -.13 | .15 | .11 | -.08 | **.73** | .17 |
| 20. Didn't do much, just expected God to solve my problems for me | .11 | -.05 | .26 | .03 | **.69** | -.35 |
| ***Factor 6 'Active'*** (α = .79) | | | | | | |
| 6. Turned the situation over to God after doing all that I could | .25 | .16 | -.16 | -.09 | -.05 | **.70** |
| 15. Did what I could and turned the rest over to God | .35 | .24 | -.10 | -.15 | -.12 | **.64** |
| 25. Did everything I could, then I asked God to sort out it Himself | .27 | .19 | -.13 | -.07 | -.10 | **.61** |
| Eigen Value | 9 | 3.4 | 2.07 | 1.4 | 1.3 | 1.2 |
| % of Variance Explained | 31% | 11.9% | 7.1% | 5% | 4.6% | 4.1% |

Note: n = 185

Thus, in subsequent analyses, the Muslim Religious Coping Scale was split into six subscales: practice religious coping scale, benevolent religious appraisal, negative religious coping, ignoring religious coping, passive coping, and active religious coping.

### *3.9.2 Intercorrelation between the Subscales of the Measure*

Pearson correlation coefficients were computed to determine the relationship between the six scales of the Religious Coping scale. Table 2 shows the inter-correlation between the different scales. As can be seen, the practice religious coping was positively correlated with the benevolent religious reappraisal and active coping. Furthermore, the practice and benevolent reappraisal religious copings were negatively correlated with the negative religious coping and ignoring coping scales. Results also showed a negative association between active and passive religious coping scale. These inter-correlations suggest that although the dimensions of religious coping are not exclusive, they represent distinct ways of coping within Muslims.

Table 2: Intercorrelations between the scales of the Religious Coping

| Subscale | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1. Religious Practice Coping | 1 | | | | | |
| 2. Religious Reappraisal | .57** | 1 | | | | |
| 3. Negative Religious Coping | -.26** | -.19** | 1 | | | |
| 4. Ignoring | -.28** | -.24** | .50** | 1 | | |
| 5. Passive Religious Coping | .02 | .06 | .28** | .19** | 1 | |
| 6. Active Religious Coping | .46** | .42** | -.32** | -.31** | -.21** | 1 |

** P < .01; * P < .05

### *3.9.3 Reliability of Religious Coping Scale*

*Internal Consistency*: To examine internal consistency of the Religious Coping Scale, Cronbach's alpha scores were computed and found to have a good internal consistency for different subscales. Cronbach's alpha score for different dimensions of scale were: .89 for religious practice, .79 for reappraisal, .79 for negative, .68 for ignoring, .72 for passive, and .79 for active religious coping strategies. The Cronbach's alpha of scales of religious coping seems to be acceptable, except the scale of Ignoring (.68).

*Test-retest Reliability*: To evaluate the stability of scale, test-retest correlation was evaluated. The association was .93 over two weeks. It was shown that the scale had a good temporal stability over 2 weeks.

### *3.9.4 Validity of Religious Coping Scale*

*Concurrent Validity*

Spiritual Scale (King et al, 2001), a six-item scale was used to assess the concurrent validity of the RCS. This scale was designed to measure spirituality coping in patients admitted into the hospital with an acute physical illness. The results showed a high correlation between this scale and the dimensions of practice ($r = .74$, $p < .01$), benevolent ($r = .58$, $p < .01$), negative ($r = -.65$, $p < .01$) and active ($r = .52$, $p < .01$) religious coping. The results did not show any association between the spiritual scale and passive religious coping dimension ($r = .06$, $p < .72$).

*Known Group Validity*

To evaluate the construct validity of the scale, known group approach was used. For this purpose, 30 Theology students were asked to complete the religious coping scale and then their scores were compared with non-Theology students. It was hypothesised that the Theology students use more frequent religious coping strategies than other students with different subjects. The data from the independent samples t-tests were computed on each of the dimensions of the Religious Coping scale. The two groups were significantly different on four dimensions of the scale. The Theology students had a higher score in most dimensions of religious coping scale compared with

the rest of the respondents. Results indicated a significant difference on practice, benevolent, negative and ignoring religious coping. However, there was no significant difference on passive and active religious coping strategies. The results are presented in Table 3.

Table 3: Comparing the Means of the Different Scales of Religious Coping Scale for Theology Students and Non-Theology Students

| Subscale | Theology Students (n=30) | | Non-Theology Students (n=155) | | |
|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | t |
| Practice | 3.05 | 0.73 | 2.56 | 1.03 | 2.50** |
| Benevolent | 2.75 | 0.55 | 2.37 | 0.75 | -2.59** |
| Negative | .62 | 0.48 | 1.06 | 0.88 | 2.65** |
| Ignoring | .28 | 0.36 | .56 | 0.73 | 2.02* |
| Passive | 1.01 | 0.49 | .86 | 0.76 | -1.04 |
| Active | 3.11 | 0.92 | 2.89 | 0.84 | -1.11 |

Note: ** P < .01; * P < .05

### *3.9.5 Descriptive Findings*

*Experience of Stress*

The descriptive analyses of data indicated that participants in this study reported a moderate level of stress in facing various negative events. The stress was experienced from various stressful events including the university entry exam (24.7%), death of family member (24%), romantic breakdown (12%), death of friend (8.5%), serious illness of a family member (8.5%), family conflict (7.6%), financial problem (6.8%) and the other stressful events (7.6%). The death of a family member and university exam entry were the most frequent sources of stress followed by the romantic breakdown. In this study, 47.5% of participant reported that they experienced extremely negative stress, 29.5% endorsed the moderately negative, 13.9% reported somewhat negative and 9% reported slightly negative.

*Use of Religious Coping*

Descriptive statistics for different scales of religious coping measure are shown in Table 4. In general, positive patterns of religious coping were used more frequently than the negative patterns by Iranian students. The most commonly used religious coping strategies were active religious coping factor, the practice religious coping and the benevolent religious reappraisal, while the least commonly used were the ignoring religious coping and passive religious coping.

Table 4: Means & Standard Deviations of Participants on Scales of the Religious Coping Measure

| Subscales | N of Items | Mean | SD |
|---|---|---|---|
| Practice | 6 | 2.63 | 1.25 |
| Benevolent | 6 | 2.43 | 1.05 |
| Negative | 4 | 1.00 | 1.10 |
| Ignoring | 3 | .54 | .90 |
| Passive | 3 | .78 | .56 |
| Active | 3 | 2.92 | .94 |

### *3.9.6 Relationships between Subscales of Religious Coping Measure and Psychological Well-Being Outcome*

To examine the relationship between different scale of religious coping and psychological well-being, Pearson's correlations were used. Results from this analysis can be seen in Table 5. As can be seen in the Table, the practice and active religious coping scales had a modest but significant negative correlation with the GHQ-12 measure. Also there was a negative but non-significant association between benevolent and GHQ, while the negative religious coping scale had a significant positive correlation with the GHQ measure. No significant correlation was found for either ignoring, or passive religious coping in relation to psychological well-being measured

by the GHQ. The results of this study indicated that individuals who used positive religious coping strategies scored low in GHQ measure.

Table 5: Relationship between the Scale of Religious Coping Measure and GHQ

| Subscale | GHQ |
|---|---|
| Practice | -.21** |
| Benevolent Reappraisal | -.14 |
| Negative | .19** |
| Ignoring | .08 |
| Active | -.21** |
| Passive | .07 |

Note: ** P < .01; * P < .05

### *3.9.7 Gender Differences on the Religious Coping Scales*

Findings of this study also showed that there were several significant gender differences in the reported use of various religious coping strategies. As can be seen in Table 6, results from the independent sample t-test indicated that there was a significant main difference between men and women in practice, benevolent reappraisal, and ignoring coping strategies. In the present research, women had a high score on practice and benevolent religious coping, while men had a high score in ignoring religious coping. In other words, women used benevolent religious reappraisal and practice religious coping more frequently than men. The results found no significant differences between men and women on negative, passive and active religious coping.

Table 6: Gender Differences on the Scales of Religious Coping Measure

| Subscale | Men | | Women | | |
|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | t |
| Practice | 2.42 | 1.11 | 2.74 | .92 | -2.11* |
| Benevolent | 2.28 | .71 | 2.51 | .74 | -2.00* |
| Negative | .96 | .69 | .99 | .90 | .30 |
| Ignoring | .79 | .82 | .37 | .56 | 4.11*** |
| Passive | .83 | .56 | .75 | .55 | .84 |
| Active | 2.80 | .86 | 3.00 | .83 | -1.55 |

Note: *** p < .001; ** P < .01; * P < .05

## 3.10 Discussion

The main purpose of this study was to develop a reliable and valid measure of religious coping for Iranians. The different findings of the current study including the psychometric properties of the scale, association between the positive and negative religious coping and well-being measure, gender difference on religious coping will also be discussed in this section.

### *3.10.1 Use of Religious Coping among Iranian Students*

The results of the current study indicated that religious coping was a salient construct for Iranians. The participants in the qualitative pilot study and also in the questionnaire study reported using diverse religious coping strategies in the face of stressful situation. They indicated relatively infrequent use of negative religious coping strategies (e.g., expression of anger at God) when compared to positive religious coping methods (e.g., active religious surrender). The sample in this study scored higher in items of positive religious coping strategies and lower in the items of negative religious coping methods compared to other religious sample studies carried out in the U.S. (see, Pargament et al., 1998; Tarakeshwar et al., 2003).

The frequent use of positive religious coping strategies might be because Iranian people are more religious and that religious people use positive religious coping strategies more frequently than non-religious individuals (see Chapter 2). The high score of participants on practice religious coping reflect the importance of religious activities for Muslim people. The participants also scored high in benevolent reappraisal religious coping scale. It appears that Islamic teachings help people to redefine the negative events, accept their situation and interpret it in more positive framework. There are many verses of Quran indicating that the difficulties are a trial from God to test the real believers (e.g., Quran, Chapter 2, verse 155). These findings suggest that individuals used positive religious coping, adopted a positive view to stress and interpreted stressful events as opportunities for personal development and growth.

The participants in this study did not have control over the stressful situations in most cases such as death or illness of family member, therefore, the results of this research on the use of passive and active religious coping strategies should be

interpreted with caution. Of course, within Islamic teachings the main emphasis is on active religious coping and asking people to actively solve problems with sufficient efforts while simultaneously turning over the situation to God. Alternatively, some interpretations may encourage people to wait for a solution from God and not actively do anything to manage their problems. This study also showed that Theology students used passive religious coping methods more frequently than non-Theology students (Mean = 1.01 vs .86). The difference was not statistically significant.

### *3.10.2 Reliability and Validity of the Religious Coping Scale*

Factor analyses of the religious coping strategies used by Iranian people revealed six factors. The practice religious coping had a large contribution in common variance (20%). These results indicate that religious practices have a significant role in the coping of Muslims in stressful conditions as Islamic teachings encourage Muslims to practice their religion. Furthermore, the items of the scale account large common variances (64%) which indicate respondents used a wide range of religious coping strategies. Reliability of different scales of religious coping, assessed by Cronbach's alpha coefficient, appeared satisfactory, with all Cronbach's alpha being in the 0.69 to 0.89 range, indicating that the items of subscales are homogenous. In addition, the high correlation between this scale and Spiritual scale indicated a good validity of the religious coping measure.

The findings of this study regarding the significant differences between Theology students and non-Theology students on practice (Mean = 3.05 vs 2.56), benevolent reappraisals (Mean = 2.75 vs. 2.37), negative (Mean = .62 vs 1.62), and ignoring (Mean = .28 vs .56) religious coping methods underlined the construct validity of scale. The findings of the current study, indicating frequent use of religious coping methods by the Theology students compared to other students, are in line with other studies (see Pargament et al., 2001).

Moderate intercorrelations among the religious coping scales suggest that methods of religious coping are applied in combinations and patterns. Rather than measure the variety of religious coping methods in detail, then, it is possible to assess a broad range of religious coping activities. Furthermore, these intercorrelations suggest

that people did not make use of religious coping strategies individually. But they applied them in some combination with each other. A negative correlation between passive and active religious coping show that these two styles of religious coping measure two different methods of coping and also support the Pargament's study (1988) and other studies (e.g. Piepper & Van Uden, 2001).

Although the correlation between passive and active religious coping measures was significant, the effect size is not even at moderate level. While Pargament and Pieper reported a modest negative correlation between the two styles of coping ($r = -0.43$). The moderate negative correlation between passive and active religious coping ($r = -.20$, $p < .01$) in this study may indicate that some Iranian students passively waited for God to change their situation and mostly they relied on the destiny.

### *3.10.3 Association between Different Patterns of Religious Coping and Psychological Well-Being*

Findings of the current research showed that there was a negative significant association between positive religious coping strategies and GHQ measure and also a positive significant correlation between negative religious coping and GHQ. Indeed, those who used positive religious coping had a lower level of distress, while participants who used negative religious coping had a higher level of distress. Furthermore, as the results showed the practice religious coping method correlated with well-being measure. This indicates that practicing religion helped participants to have a better psychological well-being. The findings of this study are consistent with previous research indicating a positive relation between well-being and positive religious coping methods (see Pargament et al., 1998). This study also showed no correlation between passive religious coping and well-being (see Table 10; $r = .07$), while Pargament et al. reported a negative association between deferring and some well-being indexes such as self-control. The participants had no control of their situation in most cases; therefore, the passive and active religious coping strategies may not be applicable to them. Of course, in this study, the GHQ was used to assess well-being, and the structure of this scale may be different from the contents of passive religious coping, while the constructs of the scale of self control which Pargament used seemed to be similar to the contents of passive religious coping scale. On the other hand, the findings of this research

indicating no correlation between passive religious coping method and psychological well-being are consistent with the study conducted by Alma et al. (2003) in the Netherlands. They also did not find any associations between three styles of religious coping (deferring, collaborative and self-directing) and anxiety.

### *3.10.4 Gender Differences in Religious Coping Methods*

The findings of the current study showed a significant difference on some of religious coping methods between men and women. Women scored higher than men on dimensions of practice, benevolent reappraisal, and active religious coping methods. These findings support literature showing that women use religious coping strategies more frequently than men and the results are consistent with the general view that women are more religious than men (Beit-Hallahmi & Argyle, 1997; Francis & Wilcox, 1996). Findings also support Pargament's explanation that women have less societal access to resources and power. Therefore, religion becomes an accessible resource that is easily called upon for coping in times of crisis.

## 3.11 Limitations and Implications

There are several limitations in the current study which need to be considered. The current research was carried out on undergraduate Iranian students mainly females (65%) with age ranged 18 to 25 years. Therefore, this sample was not representative of the wider Iranian population. Future studies need to be conducted on larger samples, involving different age groups and gender balance. Furthermore, more research needs to be done on the relationships between different styles of religious coping and various dimensions of psychological well-being.

## 3.12 Summary of Findings and Conclusions

The findings of this study demonstrated that the religious coping scale developed on Iranians had six factors including practice, benevolent reappraisal, negative, ignoring, passive and active religious coping. The findings also indicated that the different scales of religious coping had a good internal consistency and test-retest reliability. Furthermore, the research showed that the scale had a good validity when compared with other spiritual scale measuring similar constructs and also when discriminating Theology students from non-Theology students. The results showed that

Iranian students used positive religious coping methods more frequently than negative religious coping strategies. The present research also indicated a negative association between the dimensions of positive religious coping such as practice and active and psychological well-being, and a negative relationship between the dimension of negative religious coping and psychological well-being.

# Chapter Four: Conceptualization, Measurement and Research on Personal Meaning

## 4.1 Chapter Overview

The aim of this chapter is to provide a review of the theory, conceptualization, and measurement issues of personal meaning with special attention to its relationship to spiritual/religious beliefs. In addition, empirical findings linking measures of personal meaning to age, gender and other demographic variables will be reviewed. Furthermore, the relationship between personal meaning and religiosity as well as psychological well-being variables will be reviewed.

## 4.2 Conceptualization of personal meaning and its significance for psychological theory

### 4.2.1 Introduction

Theories on psychological well-being have traditionally emphasized the absence of negative affect and psychopathology. Over recent decades, social scientists have begun to agree on the presence of positive aspects as crucial criterions of mental health. However, investigations which have included positive well-being estimates have focused on short-term affective well-being, while overlooking more enduring life challenges such as developing a sense of meaning or purpose in life (Ryff, 1996). During the last decades, however, the concept of meaning in life has gained importance in psychological theory building and empirical research and the number of researchers studying personal meaning empirically has increased. Investigators from diverse scientific disciplines have begun to address the issue of life meaning, because of its relevance to well-being and the quality of life (Debats et al., 1995).

Attention to the constructs of purpose and meaning in life originated with the philosophical writings of Victor Frankl, and in the work of many psychologists who have tried to conceptualize positive psychological functioning (e.g., Allport, 1961; Erikson, 1963; Jung, 1959; Maslow, 1968; Rogers, 1964). A number of thinkers have addressed the issue of personal meaning in life in their writings; for example, Albert

Camus in his book, the Myth of Sisyphus, addressed the question of the meaning of life. He states "I see many people die because they judge that life is not worth living; I therefore conclude the meaning of life is the most urgent of questions" (Camus, 1955, p.12-13). Jung (1961) also emphasized the importance of the meaning of life on well-being in his writings. He believed that the lack of meaning in life inhibits fullness of life and is equivalent to illness (p. 52).

Jung (1959) also pointed out that "man positively needs general ideas and conviction that will give a meaning to his life and enable him to find a place for him in the universe" (p. 89). Similarly, Maslow (1968) a humanist, views meaning as one of the "basic human needs." Also Frankl (1963), who established his theory and therapy based on meaning of life issues, regarded the search for meaning as a "primary force" in man's life. Yalom (1980, p. 465), an existentialist philosopher, pointed out that "a sense of meaningfulness of life is essential to mental health." Similarly, Maddi (1970), in his essay on the search for meaning, stated that "existential sickness" stems from "a comprehensive failure in the search for meaning in life" (p. 225).

### 4.2.2 Definitions and Dimensions of Personal Meaning

The term meaning has been used in so many ways by philosophers, theologians, linguists, and psychologists. According to Cole (1985), there are different, though interrelated, modes of meaning. Meaning can refer to: external causal relationship; external referential, semantic, or symbolic relation; intention or purpose; personal significance; objective meaningfulness; intrinsic meaningfulness; and total resultant meaning. In this section, some definitions of personal meaning and relevant concepts will be reviewed.

According to Yalom (1980), "'meaning' refers to sense, or coherence and it is a general term for what is intended to be expected by something" (p. 423). A search for meaning implies a search for coherence. "Purpose" refers to intention, aim, and function (p. 423). In conventional usage, "purpose" of life and "meaning" of life are used interchangeably. "Significance" is another closely related term. Used in one sense, "significance" has the same implication as "meaning". Baumeister (1991) also considered connection as the essence of meaning and states that meaning can link two

things even if they are physically separate entities, such as if they belong to the same category, are owned by the same person, or are both used for a common goal. According to him, the connection between the two is not part of their physical makeup and thus can only be appreciated by a human mind. He defined meaning as: "shared mental representations of possible relationships among things, events, and relationships. Thus, meaning connects things." (p. 15). Later, he broadened the definition of meaning even further to encompass, in effect, most forms of motivation. That is, meaning provides direction and hence intention. Battista and Almond (1973) described the meaning of life as the degree to which an individual can see his life within some perspective or has derived a set of life-goals or life-views from them, and the degree to which he sees himself as having fulfilled or as being in the process of fulfilling his framework or life goals. Wong and Fry (1989) also defined personal meaning as "an individually constructed cognitive system, which endows life with personal significance" (p. 368). Reker (2000) defined existential meaning as "the cognizance of order, coherence, and purpose in one's existence, the pursuit and attainment of worthwhile goals, and an accompanying sense of fulfilment. According to them, a person with a high degree of existential meaning has a clear life purpose, a sense of directedness, strives for goals consistent with life purpose, feels satisfied with past achievement, and is determined to make the future meaningful" (p. 41).

Reker (2000) also conceptualized the construct of meaning as composed of two different, but interrelated aspects. The first aspect is implicit or definitional meaning, which refers to the connection of personal significance to objects or events in life. It includes the process of assigning or structuring meaning and dealing with the meaning of experience. The second aspect is the existential meaning or meaningfulness that refers to attempts to understand how events in life fit into the larger context. It comprises the process of creating and discovering meaning, which is facilitated by a sense of coherence (sense of order, reason for existence, understanding) and a sense of purpose (mission in life, direction, goal orientation). It addresses the experience of meaning and seeks answers to questions about "what is worth living for?", "What is the purpose in life?", "Is there meaning in my life?" An individual with a high degree of existential meaning has a clear life purpose, a sense of directedness, struggles for goals consistent with life purpose, feels satisfied with past accomplishment, and is determined

to create a meaningful future. Both implicit and existential meanings are important constructs in the full understanding of human experience.

Reker (2000) postulated personal meaning as a multidimensional construct which comprises cognitive, motivational, and affective components. The cognitive dimension refers to making sense of one's experiences in life. The motivational component of personal meaning refers to the value system constructed by each individual. The affective component consists of the feeling of satisfaction and fulfilment individuals get from their experience and from achieving their goals. These three dimensions of existential meaning are considered to be interrelated and common to a person's experience of meaning.

### 4.2.3 Motivational Patterns of Meaning

Baumeister (2005) described the quest for meaning in terms of four main needs for meaning. These constitute four patterns of motivation that guide how people try to make sense of their lives. People who have satisfied all four of these needs are likely to report finding their lives as being very meaningful. In contrast, people who cannot satisfy one or more of these needs are likely to report insufficient meaningfulness in their lives.

The first need is for purpose. The essence of this need is that past and current activities derive meaning from possible future circumstances. The future events lend direction to the present so that the present is seen as leading toward those eventual purposes. Purposes can be sorted into two main types. One is simply goals: an objective outcome or state that is desired but not yet real, and so the person's present activities take meaning as a way of translating the current situation into the desired (future) one. The other form is fulfilment, which are subjective toward some anticipated state of future fulfilment, such as living happily ever after, being in love, or going to heaven. The second need is for values, which can lend a sense of goodness or positively to life and can justify certain courses of action. Values enable people to decide whether certain acts are right or wrong, and, if people shape their actions by these values, they can remain secure in the belief that they have done the right things, thereby minimizing guilt, anxiety, regret, and other forms of moral distress.

The third need is for a sense of efficacy. This amounts to a belief that one can make a difference. A life that has purposes and values but no efficacy would be tragic: the person might know what was desirable but could not do anything with that knowledge. It is relatively clear that people seek control over their environments and over themselves, and deep lack of control can provoke a serious personal crisis that can have a negative impact on physical and mental health. The fourth and last need is for a basis for self-worth. Most people seek reasons for believing that they are good, worthy persons. Self-worth can be pursued individually, such as by finding ways of regarding oneself as superior to others. It also can be pursued collectively, such as self-esteem from belonging to some group or category of people that they regard as worthy.

According to Baumeister and Vohs (1998), modern Western society seems reasonably adept at satisfying three of the four needs for meaning which are purpose, efficacy, and self-worth, but does not seem to succeed as well at offering people a reliable and convincing set of values. Indeed, moral discourse has lost its bearings and foundations. He viewed "the value gap" as the most widespread difficulty that people today have in finding meaning in life. The relative lack of firm, recognized values is the most common and socially pervasive problem in the modern quest for a meaningful life. He pointed out that the other needs for meaning can be problematic for many individuals, but at least society does offer sufficient means of satisfying them. Values in particular are the area in which society is least helpful.

According to them, in contemporary societies, family and culture fail to provide a complete set of values; therefore, individuals must construct their own values system. He stated that all people, especially the young, are unprepared for this difficult and important task. Without guidance, they usually adopt only small pieces of values and goals from others; therefore to a large extent they use personal satisfaction as their guiding light: having fun, looking good, loving, working, and being successful and happy. They viewed the rising emphasis on self and identity in the modern world as a response to the value gap. Modern culture has elevated the self to the status of serving as a basic value.

### 4.2.4 Different Levels of Personal Meaning

Personal meaning is described as a structure with the different levels. For example, Park and Folkman (1997) distinguished between the global and situational levels of meaning-making. Global meaning-making refers to the establishment of a basic orientation, long-term belief system, or set of valued goals. Situational-specific meaning-making represents a more specific appraisal of an event in terms of its relevance and meaning for one's life. It refers to finding meaning in a particular context that is congruent with one's global meaning structure.

Yalom (1980) also distinguished between terrestrial and cosmic meaning and believes that the question about the meaning of life is a question regarding cosmic meaning, about whether life in general, or at least human life, fits into some overall coherent pattern. But the question of "what is the meaning of my life?" refers to what some philosophers call terrestrial purpose. According to him, a proper understanding of personal meaning requires both types of meaning. Cosmic meaning refers to some design existing outside of and superior to the person and invariably refers to some magical or spiritual ordering of the universe. On the other hand, terrestrial meaning have foundations that are entirely secular referring to a sense of personal meaning without a cosmic meaning system.

Yalom (1980) argued that it would be possible to have terrestrial meaning without cosmic meaning, but individuals who possess a sense of cosmic meaning generally experience a corresponding sense of terrestrial meaning. According to him the existence of a sense of cosmic meaning would provide a clear link between religiosity and meaning system. He believed that one may believe in cosmic meaning but be unable to comprehend one's own place in that grand design or may even feel that one has behaved in such a way as to forfeit one's position in the cosmic plan. He also believed that meaning systems cannot be relinquished without some substitutes. According to him modern secular humans face the task of finding some direction to life without an external beacon.

Moody (1985), a Philosopher and Gerontologist, has also distinguished between three levels of meaning in life: the meaning of my life, the meaning of human life, and

the meaning of the cosmos. In each case he adds the phrase "*as a whole.*" According to Moody, it is the global sense of meaning that comes to attention at times of crisis and particularly when the limits of a life come into view: for example, in the shock that surrounds death and bereavement. Moody postulated that at certain times in life, we tend to ask questions about the meaning of life *as a whole*. In mid-life crisis or in autobiographical reflection in old age, what is at sake is a sense of the meaning (or lack of meaning) of my life. This is the psychological version of the question of meaning that is most familiar today. The second level of meaning is the concern about the meaning of the entire human situation, the meaning of human existence or human history as a whole. This concern is related to the future of human species. The third level is the widest possible question about meaning in life, the meaning of human existence in the cosmos, the meaning of life and death is that "does our human existence have an ultimate significant in the universe as a whole"? Moody called third level as the questions of traditional philosophy and religion.

According to Moody, the third level of meaning is wider than either individual or collective concerns. He postulated that any answer to this wider question of the meaning of the cosmos as a whole will have implications for the psychological or personal question of the meaning of *my life*. Moody (1985) believed that failure to articulate philosophical notion of meaning across the life span means that practical activities such as psychotherapy cannot be fully successful. He pointed out that without reflection on these metaphysical questions we will inevitably lose our direction when we try think about very specific matters in gerontology. Moody (1985) stated that although some individuals might have meaning on an individual level (e.g., my private life has meaning); collective and cosmic meaning appears to be unattainable for most people.

### 4.2.5 Sources of Personal Meaning

Source of personal meaning refers to the different content areas or personal themes from which meaning is experienced. Meaning can be derived from a variety of sources. According to Frankl (1963) meaning stems from three broad sources: creative, or what one accomplishes in terms of creative work, experiential, or what one drives from beauty, truth, or love, and attitudinal, or what one derives from reflections on negative aspects of life such as pain and suffering. He also emphasised self-

transcendence as fundamental to the experience of meaning. Baumeister (2005) also argued that meaning can be derived from various sources. According to him, a nation, a political movement, scientific progress, art, and similarly grand contexts are effective sources of meaning in life, because they are all larger and longer-lasting than the individual's life, and all of them offer the hope that the products of one's life and activities will continue after the end of one's own life. Many people draw meaning from their family, especially their children (who may be expected to outlive them), and in some cases by emphasizing their links to previous generations, such as in ancestor worship. Baumeister (1991) also described work, love and family relationships as important sources of meaning apart of religion. According to him (2005), religion has long been an especially powerful, popular and the highest possible level of source of meaning in life.

Research based on case studies, cross-sectional samples, and general surveys, using either qualitative or quantitative methods, suggests that meaning can be derived from a wide variety of specific sources that vary according to cultural and ethnic background, socio-demographics, and developmental stage (e.g., DeVogler & Ebersole, 1985; Kaufman, 1986; O'Conner & Chamberlain, 1996; Yalom, 1980). For example, DeVogler and Ebersole (1985) suggested that most people derive meaning from a variety of valued sources and only a few rely on a single, central source. Battista and Almond (1973) suggested several different models for identifying meaning in life, with meaning stemming from God (religious), from being (existential), from humanity (humanistic), or from life (self-transcendent). They found that people were often committed to two or more systems of beliefs, with meaning derived from a combination of sources.

Yalom (1980) made the important distinction between those secular sources of meaning that are concerned with the self, namely hedonism and self-actualization, and others which "reflect some basic craving to transcend one's self-interest and to strive towards something or someone outside or 'above' oneself", namely altruism, dedication to a cause and creativity." The latter group he collectively terms self-transcendence. Reker and Wong (1988) also proposed that individuals experience meaning from several different sources and that a greater variety of these will lead to a greater sense of fulfilment. They summarized the most common sources of meaning cited in the

literature including personal relationships, altruism, religious activities, creative activities , personal growth, meeting basic needs, financial security, leisure activities , personal achievement, leaving a legacy, enduring values or ideals, traditions and culture, social causes, humanistic concerns, hedonistic activities, material possessions, and relationship with nature.

### 4.2.6 Meaning through Suffering

It is argued that suffering stimulates the needs for meaning and personal growth (e.g., Emmons et al., 1998; Baumeister, 1991; Frankl, 1963). Indeed, traumatic events precipitate a crisis in meaning, raising questions pertaining to the purpose and meaning of life and the nature of suffering and justice in the world, as people struggle to answer both why the event occurred and what the implications will be for the future. According to Frankl (1963), suffering is the main way through which individuals can find meaning in their life and transcend themselves. Similarly, Maslow (1968) noted that "the most important learning experiences were tragedies, deaths, and trauma which forced change in the life-outlook of the person and consequently in everything that he did" (p. 23). People are quite willing to endure pain, deprivation, and other aversive events if there is some meaning such as a purpose or justification or an increase in self-worth.

Baumeister (1991) argued that suffering and unhappiness tend to be characterized by a loss or lack of meaning. Responses to suffering, accordingly, are often designed to find meaning to make sense of the misfortune itself and to restore a broad sense of meaningfulness that is sometimes threatened by personal suffering. According to him, when people live in a fairly comfortable state, life follows reasonably on safe, predictable paths, and the world makes sense. The onset of suffering may therefore be accompanied by a loss of meaning. Onset of suffering or trauma breaks apart this comprehensible world and thrusts the person into a painful state that does not make sense. To recover, the person may need to find some meaning to handle misfortune or suffering and to put the world back together (Baumeister, 1991).

The problem in meaning that is posed by suffering goes beyond the painful event itself. Trauma can undermine one's broad assumptions about the nature of the world. Janoff-Bulman (1989) has used the term "assumption worlds" to refer to these

integrative views of the world. They are essentially broad constructions that make sense of a wide assortment of events and facts. Assumptive worlds fit most of the person's relevant events, experiences, and information. They help the person make sense of his or her daily life. When something terrible happens, however, it often violates these assumptions about the world. A severely aversive event may radically contradict one's view of the world, and so the broad structures that one has relied on to endow one's life and activities with meaning cease to function. One's immediate experience is actually incompatible with one's general beliefs, and so one experiences considerable cognitive dissonance.

The question of the origin and the overcoming of suffering is one of the fundamental questions of religions (Koslowski, 2001). Religions have offered many explanations for suffering. Most of the world's great religious traditions embrace suffering in the name of spiritual growth (Emmons, 2003). For example, Christian theology offers several ways of understanding suffering that makes the voluntary acceptance of it a point of spiritual growth and transformation of consciousness. It is seen as an opportunity to share in the passion of Jesus (Hinnells & Porter, 1999). In Islam suffering is viewed as a personal growth and a test or trial to confirm a believer's spiritual station. For example, The Qur'an makes this explicit: "We shall test your steadfastness with fear and famine, with loss of life and property and crops" (2: 15) (e.g., Sachedina, 1999). In Buddhism, the primary preoccupation is with moral and spiritual suffering of living beings. Buddhism teaches that the entire spectrum of existence in its physical and sentient forms is impermanent, painful, and insubstantial (Skorupski, 1999).

### 4.2.7 Theories of Personal Meaning

#### *4.2.7.1 Viktor Frankl*

The main interest for psychological research on the meaning of life originated with the work of Frankl. He is widely credited with being a pioneer in the study of meaning, for whom the will to meaning is a human universal need or fundamental motives that forms the foundation of human existence. Frankl formulated his theory and therapy through his experiences in Nazi Concentration Camps. He observed that individuals who had hopes of being reunited with loved ones, or who had projects to

complete, or who had strong faith, tended to have better chances of survival than those who had lost all hope. He felt that those who were able to do so were people who found some spiritual meaning in their lives. He believed that the primary motivation force of human behaviour is the "will-to-meaning". In order to find a meaning in troubled existence people need to discover meaning through values and they have a moral duty to discover these values. He termed his therapy as "logotherapy", from the Greek word logos. The Greek term *logos* is usually translated as the "Word" or "Will" of God in religious circles. In a broader sense, it can be viewed as "that which gives reason for being." Frankl preferred the simple translation of *logos* as meaning. Frankl coined the concept of "logotherapy" to emphasize a meaning-centred approach to psychotherapy. Logotherapy is a distinct branch of humanistic/existential school psychotherapy, because of its focus on the human spirit and "the meaning of human existence as well as on man's search for such a meaning (Frankl, 1963 p.121). The main objective of logotherapy was to facilitate clients' quest for meaning and empower them to live meaningfully, responsibly, regardless of their life circumstances.

Frankl (1963) formulated logotherapy on three principles; on the freedom of the will, on the will to meaning, and on the meaning of suffering. According to logotherapy, life has meaning in all circumstances and the will to meaning is the main motivating factor in life. People have the freedom to find meaning in life, and the defiant power of the human spirit is a potent force in the struggle for survival. Furthermore, choices are present in all situations. They are expressed in our attitudes to the alternatives we select for making decisions. Another important principle is that human beings have biological, psychological, and spiritual dimensions and all of them must be considered in any treatment. People should never be referred to as "nothing but". They can transcend themselves for the sake of another human being in need, by the virtue of love. According to Frankl, tension and stress are part of human existence. Spiritual tension strengthens the "spiritual muscles" of the person and helps in the quest to lead life in the way it could be rather than as it is. He saw the issue of responsibility as one of the central tenets in psychotherapy. In his view, it is the patient who has to decide what he or she is responsible for and how life's demands are perceived at any given moment.

Frankl believed that homeostatic theory fails to explain many central aspects of human life. According to Frankl, what the human being needs is not tensionless state

but rather a striving and struggling for some goal worthy of him. He pointed out that "It is a constitutive characteristic of being human that it always points, and is directed, to something other than itself." Another major objection Frankl offers to a nontranscendent pleasure principle view of human motivation is that it is always self-defeating. According to Frankl, the more one seeks happiness, the more it will elude one. This observation led Frankl to say, "Happiness ensues; it cannot be pursued." Pleasure is thus not the final goal but is a by-product of one's search for meaning.

Frankl also pointed out that the primary motivating force in human beings undergoes a developmental sequence, and that the three Viennese schools reflect this evolution: "The Freudian pleasure principle is the guiding principle of the small child, the Adlerian power is that of the adolescent, and the will to meaning is the guiding principle of the mature adult" (p. 23). Frankl distinguished between drives that push a person from within and meaning (and values implicit in the meaning system) that pulls a person from within. The difference is between drive and strive. Yalom (1980) explained that in those characteristics that make us human rather than animal, we are not driven but instead actively strive for some goal.

Frankl (1963) believed that there is meaning in the universe and we have to discover it rather than create it. He stated that "meaning is something to discover rather than to invent" (Frankl, 1963, p 28); it has a reality of its own, independent of our minds. We may not always be able to bring the image or the meaning forth, but it is there. According to Frankl (1963) meanings are unique to each individual. He believed that man's will to discover meaning can be frustrated; he described this as an existential frustration that can lead to neuroses. Frankl named these kind of neuroses "noogenic neuroses", which others might call spiritual or existential neurosis. According to Frankl (1963), one of the most important signs of existential vacuum in society is boredom.

Frankl believed that there is, in fact, ultimate meaning in life, meaning that is not dependent on others, on our projects, or even on our dignity. It is a reference to God and spiritual meaning. This sets Frankl's existentialism apart from existentialists such as Jean Paul Sartre and other atheistic existentialists who believe that life is ultimately meaningless, and we must find the courage to face that meaninglessness. Sartre says we must learn to endure ultimate meaninglessness; Frankl instead says that we need to learn

to endure our inability to fully comprehend ultimate meaningfulness, for "Logos is deeper than logic" (cited in Yalom, 1980). Frankl (1963) stated that man is a responsible creature and must actualize the potential meaning of his life. He emphasized that the true meaning of life is to be found in the world rather than within.

Suffering has an important place in Frankl's theory. Frankl stated that "suffering is an ineradicable part of life, even as fate and death. Without suffering and death human life cannot be complete" (1963, p.154). Indeed, suffering is not a necessary condition for meaning, but it tends to trigger the quest for meaning. Suffering stimulates the need for meaning and when meaning provided, suffering is often reduced substantially. Frankl (1963) emphasized that people are willing to endure any suffering, as soon and as long as they can see a meaning in it. For without this discovery suffering can turn into despair and self-destruction.

Frankl's theory has some similarities with other psychological theories that emphasize on positive and optimal human functioning. These theories include Allport's theory on conception of maturity, Roger's description of the fully functioning person, Maslow's characterization of self-actualization, Erickson's psychological stages, and Jung's process of individuation (e.g., Allport, 1961; Erikson, 1963; Maslow, 1968; Rogers, 1964).

#### *4.2.7.2 Personal Meaning in Existential Philosophy*

It is thought that the idea of existential meaning stems from the literature and insight of existential philosophy and existential phenomenology. Indeed, the notion of personal existence is inspired by the work of such central existentialist thinkers as Martin Heidegger, Jean-Paul Sartre, Maurice Merleau-Ponty, and Gabriel Marcel (Kenyon, 2000). Existentialists are concerned with the nature of being or becoming, and pose fundamental questions about existence such as being, choice, freedom, death, and absurdity: Who am I? Is there meaning in life? Is life worth living? They postulate that to be human means to exercise free will, to make choices, to pursue goals, to act authentically. Existentialists also focus on the immediate experiences of a person's daily existence, on what is called "being-in-the-world." Furthermore, they believe that human existence is seen as a continuous struggle as individuals cope with the problems of life

and as they move the realization of their problems. The search for meaning is a central feature of that struggle (Reker & Chamberlain, 2000).

*Yalom Irvin's Theory*

Yalom (1980) has addressed the phenomenon of meaning in life from an existentialist stance. His approach starts with the basic existential conflict that flows from the individual's confrontation with four central givens of existence or ultimate concerns, i. e. death, freedom, isolation and meaninglessness. Psychopathology is conceived as the result of defensive and ineffective modes of dealing with these ultimate concerns. On the other hand meaning in life is considered an individual's creative response to the world's absolute *meaninglessness*. Humans essentially choose and create their own circumstances. Meaning does not exist outside of individuals, who fully create it of their own.

According to Yalom (1980), there is not an ultimate design of, or purpose to the universe. Consequently, personal meaning is needed to survive in a meaningless universe. Meaning can be achieved through various ways e.g., altruism, dedication to a cause, creativity, or hedonism. However, since most individuals are aware of the self-created nature of their personal meanings, a second action is required, *commitment*. Individuals need to commit themselves wholeheartedly to their chosen meanings and purposes if they wish to avoid the anxiety of nihilism. Anxiety of meaninglessness is often enlarged by an awareness of the inevitability of death. If all is lost with death, then what meaning can life have at all? A sense of meaningfulness of life is regarded essential to mental health: "The human being seems to require meaning. To live without meaning, goals, values or ideals seems to provoke considerable distress. In severe form it may lead to the decision to end one's life we apparently need absolutes, firm ideals to which we can aspire and guidelines by which to steer our lives"(Yalom, 1980, p. 422). Thus, Yalom's theory postulates that attributing meaning and purpose to external events provides a considerable amount of security and stability to human life.

On the other hand, reaching the conclusion that the world does *not* possess meaning can be very disappointing and may result in an overwhelming sense of responsibility and despair. He views this dilemma of the problem of meaning as two

propositions that both are true and appear opposed. According to Yalom (1980), the human being seems to need meaning, and a lack of meaning, aims, values and ideals has negative consequences and causes significant distress. On the other hand, he states that the only true absolute is that there are no absolutes and there exists no meaning, no grand design in the universe, no guideline for living, other than people create for themselves. He concludes that the problem in its most basic form is, "how does a being that needs meaning find meaning in a universe that has no meaning?"

In dealing with possible answers to the question of the meaning of life, three different approaches have been addressed: (1) The theistic answer; (2) The non-theistic alternative, and (3) The approach that questions the meaningfulness of the question. According to the theistic answer, the meaning of life is found in the existence of a God, a supreme and all-powerful being, transcendent to the natural universe, but who created the universe and fashioned man in his image and endowed him with a preordained purpose. Frankl was adherent of this approach.

According to the second approach, since there is no good reason to believe in the existence of a transcendent God, there is no good reason to believe that life has any objective meaning or purpose, that is, any meaning that is dependent on anything outside of the natural universe. In other words, each individual creates his or her own meaning by virtue of his/her own consciousness and creative activity. Sartre (1948), a secular existentialist expressed his belief that the world was meaningless for man and that the individual should find some direction and meaning for his own personal life. He emphasized that "all existing things are born for no reason, continue through weakness and die by accident. He also stated that "it is meaningless that we are born; it is meaningless that we die" (cited in Yalom, 1980).

According to third approach, the question "what is the meaning of life?" is a peculiar or at least an ambiguous one. The adherents of this approach think that on analysis of terms such as "meaning," "purpose," and "value," the question of the meaning of life turns out to be cognitively meaningless (Klemke, 2000).

## 4.3 Psychological Models of Personal Meaning

### 4.3.1 Introduction

Since Frankl's (1963) conceptualization, the concept of personal meaning has been studied in psychological context as a single variable or in a composite form in detail (e.g., Antonovsky, 1987; Maddi, 1970, Park & Folkman, 1997). Personal meaning has been conceptualized in a number of different ways, including meaning as a general life orientation (e.g., Antonosky, 1987; Baumeister, 1991); as personal significance (e.g., Lazarus & Folkman, 1984; Leventhal et al., 1992); as causality and the process of making attributions about way an event occurred (e.g., Bulman & Wortman, 1977); as coping activities in which the individuals finds transcendent features in the event (e. g., Thompson, 1985); and as an outcome of the process of dealing with traumatic events (e.g., McIntosh et al., 1993). This range of conceptual formulations is reflected in the diverse operational definitions that have been used in empirical research on meaning.

### 4.3.2 The Concept of Coherence

The sense of coherence is defined as a generalized way of viewing the world, a global orientation that is reasonably stable by the end of early adulthood. The sense of coherence is considered as a perceptual structure and a crucial element in the basic personality structure. The sense of coherence consists of three intertwined, experiential factors that are influenced by life experiences. These are comprehensibility, manageability, and meaningfulness (Antonovsky, 1987).

Comprehensibility, the cognitive component, refers to the extent to which persons perceive stimuli that confront them as making cognitive sense, predictable, ordered, consistent, structured and clear. Consistent and predictable experiences allow people to anticipate and understand what specific idiosyncratic events may arise in a given situation and how best to adapt. A second, related component is manageability. This component refers to the extent to which individuals perceive that they have the personal and social resources to confront and cope with demands created by the stimuli. The third and most important component of the sense of coherence is meaningfulness. Meaningfulness, the emotional counterpart of comprehensibility, refers to the degree to which people's life makes emotional sense and that the demands confronted by them are

perceived as being worthy of energy investment and commitment. Antonovsky (1987) claimed that meaningfulness is the most important component of the sense of coherence. Without meaningfulness, the manifestations of the comprehensibility and manageability components are likely to be temporary and coping is therefore likely to be poor. Specially, a high level of meaningfulness motivates individuals to search for order and to make sense of their environment. Given successful transformation, chaos is interrupted and life experiences that shape sense of coherence and to serve as coping resources that protect people from the deleterious consequences of stress (Antonovsky, 1987).

Antonovsky (1994) described the role of the sense of coherence (SOC) and meaningfulness within the stress–health process as follows. First, those with a strong SOC may be influential in affecting various bodily systems with the end goal of returning physical functioning back to homeostasis. Second, those individuals who are driven by a strong sense of coherence understand their situation, and have the resources necessary for successful coping. Such individuals will be highly motivated to engage in those behaviours that promote health (e.g., exercise) as well as avoid those that may damage it (e.g., smoking). And last, SOC may influence health and well-being through a process of primary and secondary appraisal. Specifically, those with a strong sense of coherence are better able to adapt to the problem at hand by calling on those general resistance resources that may help to derive order from chaos. Meaningfulness has an important role to play in these processes. More specifically, meaningfulness is the key variable that helps to mobilize the sources necessary for confronting the problem head-on. Antonovsky (1987) believed individuals with a strong sense of coherence tend to view the challenges that confront them as opportunities rather than as threats, consequently minimizing their stressful impacts. Investigations indicates that when people simply anticipate an experience that they expect will be positive, or think about something that makes them feel good, positive changes occur in our bodies as well (Antonovsky, 1987).

### 4.3.3 Personal Meaning as Coping Mechanism

Lazarus and Folkman (1984) theorized a cognitive model of coping which includes two types of coping responses: problem-focused and emotion-focused coping.

Problem-focused coping tends to be applied when a person believes resolution of a problem is possible. Emotion-focused coping is used when the situation cannot be changed and the person needs to adjust psychologically to a stressor. Park and Folkman (1997) later expanded Lazarus and Folkman's original model by adding a third coping mechanism: meaning-based coping which consists of coping processes involving two types of meaning: global and situation-specific. Global meaning refers to "people's basic goals and fundamental assumptions, beliefs, and expectations about the world" (p. 116) and is similar to the construct of existential meaning; and situational meaning refers to "the interaction of a person's global beliefs and goals and the circumstances of a particular person-environment transaction" (p. 121). Park and Folkman proposed that both types of meaning are affected when individuals are faced with challenging life events, such as breast cancer, and that acceptance or resolution of the stressor occurs when global and situational meaning are consistent or congruent with each other. Thus, the goal of meaning-based coping is for both situational and global meaning to be congruent, which in turn results in either acceptance or resolution of the original stressful situation.

### 4.3.4 Death and Personal Meaning

It is argued that death has an important relationship to the meaning of life. For example, Feifel (1959) stated that manner of human departure from life bears a definite relation to philosophy of life and death. He believed that the concern of human beings toward death is not the sign of indifference to life or a denial of it. Rather, in gaining an awareness of death, we sharpen and intensify our awareness of life. According to Feifel, man can completely understand himself only by integrating the death concept into his life. He argued that the fear of death stems from the failure to find personal meaning for one's life and death.

Butler (1963) also proposed that people are more afraid of meaninglessness than of death. According to Butler, individuals who see their lives as fulfilling and meaningful should show less death anxiety and more death acceptance. Similarly, Erikson (1963) theorised that individuals in their last stage of development have to accept death by resolving the crisis of integrity versus despair. Baumeister (1991) also argued that death challenges the meaning of one's life and makes it possible to see what life has actually amounted to, and the answer can be disturbing. He viewed fulfilment as

an important category of purpose which is even more jeopardised by death than are goals. The removal of chances for fulfilment is a powerfully threatening aspect of the death, insofar as death removes one's own future and thus prevents the future from lending meaning to the present. Ample evidence supports the idea that people fall back on broader contexts to cope with this threat of death. When reminded of death, people cling more firmly to their culture and their ethnic heritage. They assert their own values more strongly than they do when not reminded of death (Greenberg et al., 1992).

It is thought that attitude toward death and existential meaning are interrelated and each one influences the other one. It has been argued that fear of death stems from the failure to find personal meaning for one's life and, in turn one's death (Wong et al., 1994). With regard to linking death and meaningfulness, Jung (1959) stated that the question of the meaning and worth of life never becomes more urgent than when we see the final breath leave a body.

There is ample evidence supporting the existential view that death fear or death acceptance depends on whether one has meaning in life and achieved integrity. A number of empirical studies have investigated the relationships between death anxiety or death fear and existential meaning. Some of these studies have shown opposite associations between personal meaning and death fear. For example, Durlak (1972) in his research found that individuals who experienced high purpose and meaning in their life tended to fear death less and to have a more positive and accepting attitudes toward death. Similarly, Quinn and Reznikoff (1985) found that participants who lacked a sense of purpose and direction in their lives reported high levels of death anxiety. Conversely, Wong (1989) found that fear of death was negatively associated with psychological well-being as well as positive meanings of life and death, and this positively correlated with depression. However, researchers concluded that fear of death stems from the failure to find personal meaning for death.

## 4.4 Religion as a Significant Source of Meaning

It is argued that a major component of spirituality and religion is its concern with the meaning of life, death, and suffering. Religion has always been considered as a potential source of personal meaning (e.g., Emmons, 2003; Pargament, 1997). Religion

is well suited to provide answers to some of the questions of life's meaning. Many people think of the question of life's meaning as a religious question, although people also find a great deal of meaning in work, love, and family life (Baumeister, 1991). Baumeister (2005) postulated that part of the appeal of religion has been rooted in control. Indeed, religion constantly offers more direct opportunities for control over life. Furthermore, understanding events is an important form of control and religion typically offers a fairly extensive means of understanding all sorts of events. The believer who is able to accept otherwise inexplicable events as being, "God's willing" may be satisfied with this form of interpretive control. According to Baumeister (2005) the possibility of gaining meaning and understanding may be the single most important part of religion's appeal. Religion appeals most strongly to people who are confronted with misfortune that are beyond their direct control such a sickness, accident, and war. These events bring people to religion, and religion comforts them with ways of understanding.

Similarly, Jung (1961) pointed out that "it is the role of religion to give a meaning to the life of man" (p. 89). Frankl (1963) also viewed spiritual commitment as a basis for discovering the meaning of life and death. Emmons (2003) pointed out that religion or spirituality can provide a unifying philosophy of life and serve as an integrating and stabilizing force that provides a framework for interpreting life's challenges, and provides a resolution to difficult conditions. Furthermore, Pargament (1997) believed that science and materialistic way of life is not sufficient to provide the meaning in our lives in light of despair, dissolution, and death. Religion on the other hand can enable us to achieve ultimate meaning and provides directions for humans to follow in seeking meaning.

Chamberlain and Zika (1988), however, postulated that meaning can have a variety of different sources, including religion. They argued that religion may promote meaning, but is unlikely to be the sole source of meaning, and it appears inappropriate to constrain meaning to a dimension of religiosity. On the other hand, they pointed out that it is not necessary to be religious in order to achieve meaning in life, and other sources can be used to provide people with a sense of who they are, a reason for being, and a sense of meaning identification. Furthermore, Coleman and O'Hanlon (2004) commented that in the contemporary Western world, the search for alternative sources

often spiritual in character, but outside the boundaries of orthodox religious faith have become more evident.

## 4.5 Measurement of Personal Meaning

### 4.5.1 Introduction

Several qualitative and quantitative instruments have been developed to measure personal meaning constructs. Reker and Fry (2003) categorized personal meaning measures under three headings: general measure of meaning in life, domain-specific measures, and context-specific measures of meaning. The general measures of personal meaning reflect that a low proportion of disabled veterans would have mental health problemsning reflect an individual's understanding of how events in life fit into a larger context and can facilitate a sense of coherence and purpose. As such, general measures assess an individual's existential belief system. Domain-specific measures assess the extent to which specific activities contributes to a meaningful life (e.g., altruism, personal relationship). These measures identify the sources from which an individual drives a sense of meaning and purpose. Context-specific measures assess the meaning within the context of a specific experience, such as life-threatening illness (e.g., aids, cancer). These are largely measures of how meaning is constructed, searched for, or found in the specific experiences (Reker & Fry, 2003). In this section, personal meaning measures particularly, the Life Attitude Profile-Revised scale and its psychometrics properties, will be reviewed.

### 4.5.2 The Purpose in Life Scale and Other Early Measures

The Purpose in Life (PIL) scale was the first instrument developed by Crumbaugh and Maholik (1964) to operationalize Frankl's ideas and to measure the experience of meaning in life. The PIL served as an operational definition of Frankl's (1963) concept of the "will to meaning". Subsequently, Crumbaugh (1977) developed the Seeking of Noetic Goals (SONG) scale to measure the strength of motivation to find meaning and purpose in life. Together, the PIL and SONG were considered as unidimensional measures of discovered meaning and motivation to find meaning, respectively. This scale has been widely used for measuring meaning in life.

Additionally, Battista and Almond (1973) constructed a new scale, the Life Regard Index (LRI), to address some limitations of the PIL. The LRI is a self-report consisting of two subscales. The framework (LRI-FR) subscale is designed to measure the degree to which individuals can conceive their lives within some meaningful view or have derived a set of life purposes or philosophy of life from these. The Fulfilment (LRI-FU) subscale assesses the degree in which people see themselves as having fulfilled or as being in the process of fulfilling their framework or life-goals (Debats et al., 1995).

The Life Purpose Questionnaire (LPQ) is another measure which was developed by Hablas and Hutzell (1982). The LPQ was designed to assess the degree of life meaning experienced. This scale has not been investigated widely in personal meaning research. In addition, DeVogler and Ebersole (1980) developed the Meaning Essay Document (MED) based on personal documents. This scale consists of two open questions regarding the meaning of life. Participants write essays in response to questions about what gives meaning to their life and how deep they consider their life meaning to be. Furthermore, the Sense of Coherence (SOC) was developed within the context of health and coping by Antonovsky (1987). It consists of three subscales including comprehensibility, manageability, and meaningfulness.

The majority of empirical studies on personal meaning have relied almost exclusively on the PIL scale. Furthermore, there are some investigations on the LRI. The studies regarding the reliability and validity of personal meaning measures have reported mixed results, some of them have supported the original findings and some have not. For example, Yalom (1980) claimed that the PIL items appear to relate to several different constructs. Furthermore, Reker and Cousins (1979) investigated factorial structure of the PIL and found six independent dimensions.

Similarly, Shek (1992), in a study on Chinese people, obtained a five-factor solution with two general factors for PIL (existence and death), which is contrary with original study; while Crumbaugh and Maholik (1964) had claimed that PIL is a unidimensional scale. Similarly, Chamberlain and Zika (1988) examined the factorial structure of three personal meaning measures including PIL, LRI, and SOC. At the first-order item level, all three scales were found to be multidimensional: four factors for the

PIL, six for the LRI, and seven for the SOC, but at the second-order scale level, a single higher-order factor emerged, suggesting that a general meaning in life dimension underlies these measures.

Regarding LRI, the investigations also did not confirm Batista and Almond's (1973) results indicating that the LRI consists of two factors (Chamberlain and Zika (1988). Similarly, Reker and Fry (2003) examined the factor structure of several personal meaning measures including PIL, LRI, SOC, PMI, Self-Transcendence Scale (STS), and LPQ and found six scales loaded on a general "existential meaning" factor. Researchers concluded that all personal meaning measures used in their study constitute a set of construct-valid general measures of meaning of life.

### 4.5.3 The Life Attitude Profile-Revised Scale (LAP-R)

The original Life Attitude Profile (LAP) was developed by Reker and Peacock (1981). This scale was intended to assess both the degree of meaning and purpose and the strength of motivation to find meaning and purpose. It was consisted of 56 items and was developed using items from existing scales such as PIL, Seeking of Noetic Test, Personal Orientation Inventory (Shostrom, 1962) and the Death Perspective Scale (Lowe & Gormanous, 1979). Later Reker (1999) revised the scale. The LAP-R consisted of six scales including Purpose (PU), Coherence (CO), Choice/Responsibility (C/R), Death Acceptance (DA), Existential Vacuum (EV), and Goal Seeking (GS).

Since developing the LAP-R, a number of researchers have used this scale to measure personal meaning and its relevant constructs (e.g., Cappeliez & O'Rourke, 2002; Dennis et al., 2005; Dunn, 2001; Halama, 2000, 2002; Harville et al., 2004; Konstam & Holmes, 2003; Ranst & Marcoen, 2000; Park & Folkman, 1997; Reker, 2005; Reker & Fry, 2003; Schoen & Nicholas, 2004; Talbot, 1996; Vickberg et al., 2000). Reker (1999) reported a Cronbach's alpha ranging from 0.77 to 0.91 for different subscales across age groups. In addition, test-retest reliability of scale was reported from 0.77 to 0.90 for different subscales.

Reker (1999) validated the scale and found that it had five factors including personal meaning, choice/responsibility, death acceptance, existential vacuum, and goal

seeking. The items of PU and CO scales were loaded on one factor (Personal Meaning Index- PMI). Reker (1999) hypothesized PU and CO to constitute the construct of personal meaning. In addition, loadings of variables revealed a similarity in the factor structure across the different age groups and between men and women; therefore, Reker (1999) considered this as a support for factorial invariance of the scale.

The PMI is a 16-item composite scale derived by summing the PU and CO dimensions of the LAP-R. Reker (1999) stated that a general second-order model of personal meaning best characterizes the factor structure of personal meaning of both younger and older adults. Furthermore, Reker (2005) in a recent research investigated the factorial validity of the PMI on different age and gender groups. His findings showed that a one-factor corresponding measurement best characterized the underlying structure of the PMI for each age group and for both males and females.

## 4.6 Review of Research Using Personal Meaning Scales

### 4.6.1 Introduction

Since Frankl introduced the concept of meaningfulness into psychology, many empirical studies have been conducted on personal meaning. The main purpose of this next section is to review the literature on personal meaning across life-span and other demographical characteristics. Furthermore, the research regarding association between religiosity and personal meaning will be reviewed. In addition, findings related to the relationships between personal meaning, psychological well-being and psychopathology will be reviewed. Finally, the cross-cultural studies of personal meaning will be presented.

### 4.6.2 Personal Meaning, Age and Other Demographical Characteristics

It has been conceptualized that the sense of the meaning changes over life course. According to Frankl (1963), meaning in life needs to be personally discovered. This implies that meaning in life may be age-related. Reker and Wong (1988) also assumed that the personal meaning system becomes more integrated as people grow older. Empirical studies indicate that being older was related to a stronger experience of purpose in life (e.g., Reker & Wong, 1988). The desire to achieve new goals and the

anticipation of a meaningful future, on the other hand, were more articulated in younger adults (e.g., Reker et al., 1987). However, Baum and Stewart (1990) found that there were no significant differences in meaningful experiences between young and elderly adults.

According to Erikson's theory (1963), there is a gradual evolution of meaning throughout an individual's life cycle. Whereas in adolescence and early and middle adulthood one's concerns are centred on self as one struggles to establish a stable identity, to develop intimate relationships, and to achieve a sense of mastery in professional endeavours, in one's forties and fifties one passes into a stage where one finds meaning in self-transcendent ventures. Erikson defined this stage (generativity) as the concern in establishing and guiding the next generation, and it may take the form of specific concerns for one's progeny care and charity for the species. Among research following Frankl's approach, it has been argued that the personal meaning as a dynamic structure is constantly developed and adapted in the course of one's life (Dittmann-Kohli & Westerhof, 2000).

Cross-sectional studies across the life span from late adolescence to the old age have consistently found that personal meaning increases with age (Reker et al., 1987; Reker, 1999). With regard to changing the sense of meaning construct over ages, several researchers (e.g., Antonovsky, 1987; Baum & Stewart, 1990; Prager, 1996) claimed that the need for meaning increases with age. For example, Reker (2000) concluded that the elderly seemed to have a higher sense of meaning and purpose in life and greater death acceptance, as well as less existential vacuum and goal seeking compared to middle-aged and younger adults. In addition, Reker et al., (1987) found an increase in the scores of life purpose and death acceptance along the life. In their study some subscales of LAP-R such as Goal Seeking showed a decrease across age. In their study, young adults and the old adults were characterized by heightened levels of existential vacuum, while the middle aged, particularly had the lowest levels. Reker (1999) also in a further study found that the elderly scored higher on the LAP-R dimensions of purpose, coherence, choice, and death acceptance.

Furthermore, Reker (2005) in a recent research using PMI scale investigated age and gender invariance of the personal meaning across young, middle-aged, and older

adults and gender at the individual item level. His study's results showed that more of the young males did not see themselves as having very clear goals and aims or feeling fulfilment completely. In addition, more of the young females in his study indicated that they had not yet discovered a satisfying life purpose, while a majority of elderly females indicated that they had. Similarly, Ranst and Marcoen (2000) using the PMI and the LRI (Framework) found age differences in life meaning.

Prager's study (2001) of Canadians and Israelis also made similar points. He found an increasing philosophic and humanistic orientation to personal meaning in the later years. He also claimed that sources of meaning for two age groups (aged 20-40 vs. 60+) were different. Some of sources of meaning such as materialistic concerns, being acknowledged for achievement, personal growth, and participation in hedonistic activities were more important for the young, while family and communal values, preserving human values and ideals were more important for the elderly. In addition, in a study conducted in the UK, Dunn (2001) reported a high means score in personal meaning and existential transcendence for middle-aged respondents (aged 35-50) compared to young people (students). Her findings showed a significant age difference between the age groups for the existential transcendence dimension of LAP, but not for personal meaning.

On the other hand some research has shown the stability of sense of meaning across age. In a research, Reker and Fry (2003) used several personal meaning scales (PIL, LRI, SOC, and PMI) to investigate the factorial invariance of personal meaning structures across different age groups. They did not find significant differences on any of the personal meaning scales between younger and older adults. In their research, both age groups reported experiencing high levels of personal meaning. The researchers argued that no significant differences may be due to measurement and structural differences. Baum and Stewart (1990) also found no significant differences in meaningful experiences between young and elderly adults.

Some studies have also reported gender differences. For example, Reker (1999) found significant differences between female and males. Females had higher scores on purpose, coherence, and choice variables; on the other hand, males scored higher on death acceptance. In Reker's (1988) study, women rated personal relationships,

enduring values/ideals, religious activities, altruism, and creative activities as significantly more meaningful compared to men. However, most researchers did not find any gender effect on the personal meaning measures scores.

Debats et al., (1995) also found no difference on LRI scores in terms of age and gender. In their study, the differences between the scores of married and unmarried persons were significant, suggesting that the presence of an intimate relationship might account for higher positive life regard. Similarly, Peterson and Roy (1985) reported that married people and people who were perceived to be healthy had more meaning and purpose. Antonovsky (1987) also did not find any significant difference between men and women on the sense of coherence. Moreover, in a study, DeVogler and Ebersole (1980) found that college students had more sense of meaning than less educated people of their age group.

### 4.6.3 Personal Meaning and Religious/Spiritual Variables

The notion that religion provides a framework that gives meaning and purpose to life has been supported by several empirical investigations. There have been a number of studies examining relationship between existential meaning/purpose in life and religiosity. Most of these studies indicated a positive relationship between religiosity and meaningfulness. For example, Yalom (1980) reported that a positive sense of meaning in life was associated with both self-transcendent values and deeply held religious beliefs. Similarly, Francis and his colleagues (1994, 1996, 2000, 2001) in several studies in the UK and Australia among adolescents and undergraduate students found that church attendance, belief in God, and personal prayer had a significant positive relationship to purpose in life (e.g., Francis, 2000; Francis & Burton, 1994; Francis & Evans, 1996; Francis & Kaldor, 2001).

In another study, Emmons (2003) found that persons who were more committed to intrinsically satisfying spiritual and religious goals were more likely to report that they had both recovered from loss and found meaning in it. For these individuals, recovery and finding meaning were associated with being committed to the goals of pleasing God; experiencing personal growth; and engaging in religious traditions. On the other hand, people who rated extrinsic goals of being popular, looking young, and

being able to attract a sexual partner as important were less likely to have meaning in their loss and less likely to say they had recovered from it. Furthermore, Emmons found that the meaning-making process and eventual recovery from the loss was facilitated to the degree that the content of a person's goals contains a search for the sacred. In contrast, individuals who were primarily with self-focused goals were coping more poorly with the loss.

Several researchers have investigated the influence of different dimensions of religion on personal meaning. Fletcher (2004) in a qualitative study of a group of elderly women examined the impact of religious beliefs and religious community in constructing life meaning. Her study showed that religious beliefs were a vital component in constructing life meaning for the believers. Similarly, Halama (2003) using the LAP found a significant association between orthodoxy and religious salience with meaningfulness measures. In his research, the dimensions-extrinsic, quest and mature religiosity had no significant correlation with meaningfulness measures. Furthermore, religious dimensions had the highest correlation with the cognitive component of meaning.

Similarly, in another research on older bereaved spouses, Coleman et al., (2002) using the PMI reported a significant relationship between level of religious beliefs, personal meaning and well-being. In their study, bereaved spouses with strong religious beliefs had high scores on both personal meaning and existential transcendence and did not show depressive symptoms or mental health problems. Also in their study more than 80% of people with moderate to low belief showed low levels of personal meaning and all of them except one displayed depressive symptoms during the second year after bereavement. Researchers also found that some participants with moderate, weak and non-spiritual belief had high score on personal meaning and spirituality that indicated these measures are independent.

Moreover, Soderstrom and Wright (1975) showed that the intrinsically motivated, committed and true believers had significantly higher degree of meaning in life than did extrinsically motivated persons. In another research, Peterson and Roy (1985) also found religious salience and church attendance to be positively related to meaning and purpose. They concluded that aspects of religiosity that influence one dimension of

wellbeing may not influence other dimensions. Their findings showed that several different components of religiosity contributed to meaning and purpose.

Several studies, however, have failed to find a relationship between religiosity and purpose in life (see Crumbaugh & Maholick, 1964; Lewis et al., 2005). For example, Chamberlain and Zika (1988) reported a low relationship between religiosity and meaning in life and a high relationship between religiosity and life satisfaction. Zika and Chamberlain (1992) also in a different study about religion and well-being in the context of meaning amongst the religious samples from Roman Catholic and Pentecostals found religiosity dimensions (personal faith, church involvement, and orthodoxy) were associated at moderate levels with purpose in life in both groups. For Catholics, components were all associated at moderate to low levels with life satisfaction and positive affect, but were uncorrelated with negative affect. Also, the dimensions correlated with life satisfaction, positive affect, and negative affect at moderate levels in Pentecostals group.

### 4.6.4 Personal Meaning, Psychological Well-Being and Psychopathology

There is a clear link between people's search for meaning and their well-being. Both qualitative and quantitative research has shown a positive relationship between personal meaning and physical and psychological well-being (e.g., Coleman et al., 2002; Prager, 1996; Reker et al., 1987; Wong, 1989; Zika & Chamberlain, 1992).

Recent research has demonstrated that meaning in life is a significant cognitive construct and affects mental well-being and effective adaptation to the difficulties of life. Higher levels of personal meaning were found to have a buffering effect against stress on aging outcomes (Reker & Wong, 1988; Ryff & Essex, 1992). Meaningfulness has been also a consistent and strong predictor of psychological as well as physical health, even in times of stress and illness (e.g., Compton, 2000; Coward, 1994; Gaskins & Brown, 1992; Zika & Chamerblain, 1992). Meaning in life has been found to be correlated with higher self-esteem (Dunne, 2001; Reker, 1997), control (Phillips, 1980; Reker, 1997), life satisfaction (Shek, 1992) coping functioning (Chamberlain et al., 1992; Ryland & Greenfield, 1991; Schwartzberg, 1993), and hope (Halama, 2003).

Using combined qualitative and quantitative study, Debats et al., (1995) showed that meaningfulness was mainly related to a state of being in contact with self, other and life or the world, and also was associated with more commitment and relatedness, while meaninglessness was correlated to alienation. Debats (1996) in another study on a group of psychiatric patients also found that the meaning in life was related to well-being at moderate to high levels. Furthermore, his findings showed that a high pre-treatment score on the framework dimension of the LRI significantly predicted a low score on psychological problems and a high score on happiness, but failed to predict self-esteem at the end the treatment.

Similarly, Zika and Chamberlain (1992), in a study on mothers considered to be at risk (isolated, unpaid, with limited financial resources), found a strong association between the meaning of life and well-being. In their study, religiosity had a small correlation with well-being components and a moderate association with life satisfaction and positive affect for elderly people. Researchers also found that meaning in life had a stronger relationship with positive characteristics than with negative dimensions of personality. Fry (2000), using PMI, also found that existential measures of personal meaning, religiosity and spirituality contributed more significantly to the variance in psychological well-being than demographic variables or other measures such as social resources, physical health or negative life events, and the contribution of personal meaning for the institutional group was stronger than for the community elderly.

Wong (1989), in a qualitative study found personal meaning as the best predictor of happiness, perceived well being and the absence of psychopathology and depression. He concluded that successful ageing were more likely to report positive meanings of life as sources of happiness and life satisfaction. Hart et al., (1991) also found that sense of coherence scores were strongly negatively correlated with levels of trait anxiety. Their study showed the SOC scores were unrelated to the perceived availability of different types of social support. In another research, Midanik et al., (1992) showed that sense of coherence was a significant negative predictor of alcohol problems.

Many studies have been shown that existential meaning plays an important role in moderating the effects of stress on physical health and psychological well-being (e.g.,

Chamberlain & Zika, 1988; Reker, 1997; Vickber et al., 2000, 2001). For example, Vickberg et al., (2000), using PMI, found that global meaning moderated the effects of intrusive thoughts on psychological distress. In their research, global meaning played an important moderating role in the relation between intrusive thoughts and psychological distress. Vickberg et al., (2001) in a further study, using the same measure, also investigated the effect of global meaning on psychological distress on patients with leukaemia after bone marrow transplantation and found that lower global meaning was correlated with higher overall distress and surgery-related distress, whereas higher meaning was associated with higher social and emotional quality of life.

Reker and Bulter (1990) in a study using the PMI scale examined the impact of personal meaning on stress on a group of community residing older adults. Their study demonstrated that personal meaning had a crucial effect on psychological and physical well-being. They concluded that sense of personal meaning buffered the stress. Similarly, Schoen and Nicholas (2004) using PMI scale on a group of 248 breast cancer patients, found a strong correlation between level of meaning and quality of life.

Empirical studies have also indicated an association between mental health problems and poor meaning in life (Kish & Moody, 1989; Mamool, 1999; Yalom, 1980). According to Frankl (1966), suicide is the most extreme reaction to an inability to find meaning in life. Other reactions described by him are the development of neurotic symptoms or addiction problems. Frankl argued that addiction problems, including excessive drinking and drug abuse, excessive sexually, and excessive gambling are based in the pursuit of pleasure as a way of dulling the existential pain (Frankl, 1972). A lack of meaning has been found to be related to psychopathology (Yalom, 1980), substance abuse and suicide ideation (Harlow et al., 1986), neuroticism (Pearson & Sheffield, 1974), hopelessness (Shek, 1992) depression and anxiety (e.g., Debats et al., 1993) as well as other forms of distress. Having less meaning in life has also been associated with greater need for therapy (Battista & Almond, 1973). Yalom (1980) also claimed that meaninglessness was a frequent clinical complaint among his patients. He reported that 30 percent of his patients reported some major problems involving meaning such as the lack of meaning in life, purposelessness, and the lack of direction in life.

Theorists have postulated that lack of personal meaning is associated with depression (e.g., Harlow et al., 1986; Kinnier, 1994; Reker, 1997). Evidence obtained from empirical studies supports the existence of a relation between meaningfulness and depression. For example, Reker (1997) indicated the importance of personal meaning, choice, and optimism in the prediction of depression in community and institutional elderly. In his study, even when demographic variables were controlled the existential variables made significant contribution to the explained variance in depression for community elderly. For the institutional elderly, after controlling for demographic variables, the existential variables made a significant contribution to depression. He reported personal meaning as the most potent predictor of depression. Furthermore, some studies demonstrated that low scores in personal meaning measures such as PIL have been found to be associated with suicidal ideation (e.g., Harlow et al., 1986; Kinnier et al., 1994).

It has been postulated that the lack of meaning influence persons to use substances. For example, Frankl (1963) claims that the failure to find meaning in life can lead to harmful consequences, such as neurotic symptoms and substance abuse. Several researchers have investigated the association between personal meaning and substance abuse and found high prevalence of the lack of meaning and purpose in life among alcoholics and drugs addicts (e.g., Crumbaugh & Carr, 1979; Padelford, 1974). Furthermore, heavy use of alcohol has been associated with poor purpose in life (e.g., Harlow et al., 1986; Hutzell & Peterson, 1986; Jacobson et al., 1977; Waisberg & Porter, 1994).

## 4.7 Conclusions

This chapter addressed the conceptualization and measurement of the construct of personal meaning. The concept of personal meaning was defined from different perspectives followed by describing the different dimensions, levels and sources of personal meaning. Furthermore, the theories of personal meaning, psychological models of meaning and the link between religion and personal meaning were discussed in this chapter. Finally, the measurement of personal meaning and research on the relation between personal meaning, demographical characteristic, religiosity and psychological well-being were reviewed.

# Chapter Five: Application of the Measure of Personal Meaning in Iran

## 5.1 Chapter Overview

The current chapter addresses an introduction to measurement of personal meaning, the rationales and aims of the study, and a brief review of psychometric properties of the existing personal meaning measures, particularly, Life Attitude Profile scale (LAP). This chapter presents the findings on reliability, validity and applicability of the LAP, exploring personal meaning across age and gender, and the relationship between personal meaning, psychological well-being, and religiosity/spirituality. Finally, the results on the sources of meaning will be presented.

## 5.2 Introduction

Since Frankl postulated his theory of the meaning of life, a number of instruments have been developed to assess personal meaning constructs. The Purpose in Life (PIL-Crumbaugh & Maholik, 1964) scale was the first measure designed to operationalize Frankl's conceptualization and to measure the constructs of personal meaning and purpose in life. Most studies have used this scale to measure the meaning in life. Despite its wide usage, its validity has been repeatedly and seriously questioned by several researchers (e.g., Dufton & Perlman, 1986; Dyck, 1987; Reker, 1988; Yalom, 1980). These criticisms relate to the blending of distinct concepts (e.g., meaning in life, fear of death, freedom) and loading of PIL items on more than the one dimension that the authors had originally claimed (Chamberlain & Zika, 1988; Dufton & Perlman, 1986; Reker & Cousin, 1979) such as social desirability (e.g., Debats et al., 1995).

Yalom (1980) claimed that PIL items appear to relate to several different constructs: life meaning, life satisfaction, freedom, fear of death, and suicide. In addition, several studies examined the construct validity of the scale and reported that the PIL items were loaded on more than one factor which did not support the author's finding that the scale is unidimensional (Chamberlain & Zika, 1988; Reker & Cousin, 1979; Shek, 1992). Several other studies also supported the multidimensional structure of the PIL (Dufton & Perlman, 1986; Harlow et al., 1986).

Reker and Peacock (1981) developed the original Life Attitude Profile (LAP-R) and subsequent revised version (LAP-R) to overcome some of the structural problems of the PIL. They described it as a single, reliable, and valid multidimensional instrument that would operationalize Frankl's concepts of will to meaning, in terms of dimensions of purpose, coherence, choice/responsibility, death attitude, and goal seeking. So far, several studies have examined the reliability, validity, and factorial structure of the LAP-R, particularly, Personal Meaning Index (PMI) which consists of the subscales of Purpose and Coherence (Reker, 1999; Reker, 2005; Reker & Fry, 2003). The PMI appears to be a very reliable and valid measure of general meaning in life (e.g., Vickberg, 2000). In addition, the LAP offers the advantage of a multidimensional measure through which other facets of Frankl's logotherapy can be assessed in a single scale.

### 5.3 Rationale and Aims

Most studies regarding the perception of personal meaning have been conducted within the Western context. Therefore, it would be useful to know whether the personal meaning measures are equally applicable in a Muslim society such as Iran with a different culture and religion. The present study used the Life Attitude Profile-Revised (Reker, 1999) to measure personal meaning. The reason that the LAP-R scale was used to assess personal meaning was that it has been widely used to measure the personal meaning constructs (see Chapter one). In addition, the LAP-R is claimed to be a multidimensional instrument which measures relevant structures of personal meaning system such as choice/responsibility, death attitudes, and goal seeking (Reker, 2000).

The primary aim of the current study was to examine the reliability, validity, and applicability of LAP-R on a group of Iranian university students and school teachers before using it in study of war veterans in Iran. In addition, the current research also investigates whether the relationships between personal meaning with demographical characteristics such as age and gender, psychological well-being, and religiosity/spirituality variables are similar to those found in other samples.

## 5.4 Method

### 5.4.1 Participants and Procedure

Participants for this study consisted of 298 university students and school teachers. As can be seen in Table 7 the percentage of students and teachers were 47.7% and 52.3% respectively. The percentage of male and female were 55.7% and 44.3% respectively. The age of the respondents ranged from 18 to 68 years, with a mean age of 33 years (SD = 13.4). Participants were divided into two age groups, young (18-25) and middle-aged (30-68). The students were undergraduates from the Schools of Social Sciences, Biological Sciences, and Engineering and the teachers had different education levels including high school, undergraduate, and postgraduate education. The students were recruited from the University of Shiraz and the teachers were recruited from different schools of Shiraz- a city in the south of Iran.

Table 7: Demographic Characteristics of Participants

| Group | Students (n = 136) | Teachers (n = 162) |
|---|---|---|
| Age | | |
| Mean | 21.4 | 42.8 |
| Range | 18-25 | 26-68 |
| Sex | | |
| Male | 30% | 56% |
| Female | 70% | 44% |
| Marital Status | | |
| Married | 11% | 87% |
| Single | 88% | 13% |
| Education Level (teachers) | | |
| High School | | 38% |
| Undergraduate | | 62% |

To recruit the school teachers, a request letter and a copy of questionnaires were submitted to the Ethical Committee of the Department of Education in Shiraz to issue permission for distributing questionnaires within the schools. When permission was given, the participants were recruited. In addition, colleagues of the researcher at the University of Shiraz were asked to provide an opportunity for the researcher to distribute the questionnaires among volunteer undergraduate students. Also, the head teachers in different lower and upper secondary schools were asked to distribute the questionnaires among the volunteer teachers. Furthermore, several acquaintances of the researcher cooperated to distribute some of questionnaire packs among the teachers. The teachers were asked to complete the questionnaire packs and post to the researcher in pre-paid envelopes.

Of the 190 questionnaire packs originally distributed among the teachers, 160 completed questionnaires were returned to the researcher. When teachers' colleagues had asked teachers to take part in the study and requested to return the questionnaires by person, the number of refusals was very few (8%), but when questionnaires were given to head teachers to distribute among the teachers and had asked them to complete and returned by the post in prepared envelopes, there was more refusal (25%). Of course, it may be because of that some head teachers had not distributed all questionnaires among the teachers. Regarding students, the researcher's colleagues, who ran the classes, asked students to complete the questionnaires. All students participated in the study except two persons who had no time. Furthermore, because a number of participants had not completed some of their questionnaires properly, twelve questionnaire packs were discarded. Names or other identifying information were not asked from the participants; it was intended that anonymity would lessen the probability of participants responding to the questionnaire in socially desirable ways. Participants wishing to take part in the research completed a consent form and returned it to the researcher.

In this study, respondents rated their religiosity by answering a single question: The question was: How important is religion in your daily life. Religion was extremely important for 44.6% of participants; very important for 27.2%; somewhat important for 16.1%, and was not very important for 9.1%; only 3% of respondents believed that religion is not important at all.

The research measures were translated from English to Farsi (Persian) by the researcher with the emphasis that the translated version conveyed both a literal as well as a comprehensible meaning in Farsi, and then an Iranian scholar who had lived and studied English language in Australia corrected and edited it. Subsequently, a back translation was made independently from Farsi to English by a second expert who was expert in English and Farsi literature to be sure that the initial translation was accurate. Finally, the two translations with the original items were given to the third expert on English and Farsi to check and compare their equivalence. Every effort has been made to ensure that the original meaning embedded in each item was conveyed in the Iranian translation.

To identify potential problems of research measures, a pilot study was conducted on 15 Iranian students studying at the University of Southampton. Participants were recruited through the Iraniian Society at the University. Research measures were sent by the post and they were asked to complete the scales and also give their comments on items. After conducting this study, some words (items 9, 16, and 39) which were somehow unclear to some participants were replaced with other equivalent words in Farsi language.

### 5.4.2 Measures

#### *5.4.2.1 The Personal Meaning Measures*

*Life Attitude Profile-Revised (LAP-R):* The Life Attitude Profile-Revised (Reker, 1999) is a multidimensional scale assessing meaning and purpose in life and the motivation to find meaning and purpose in life. The LAP-R is a self-report questionnaire which comprises 48 items, each item rated on a 7-point likert scale of agreement, ranging from "strongly disagree" (1) to "strongly agree" (7). Scale scores range from 8 to 56. A high total score on each dimension reflects a high degree of the attribute in question (Reker, 1999). The scale is an operational measure of Frankl's logo-therapeutic constructs of will to discovering meaning that include six dimensions consisting of Purpose (PU), Coherence (CO), Choice/Responsibility (C/R), Death Acceptance (DA), Existential Vacuum (EV), and Goal Seeking (GS). It also includes two composite scales including Personal Meaning Index (PMI) and Existential Transcendence (ET).

*Purpose*: The purpose component refers to having life goals and a sense of direction from the past, in the present, and toward the future in life.

*Coherence*: The coherence dimension refers to having a logically integrated and consistent analytical understanding of self, other, and life in general. According to Reker (1999), implicit in coherence is a sense of order and reason for existence, a clear sense of personal identity, and a greater social consciousness.

*Choice/Responsibility*: The choice/responsibility dimension refers to the perception of freedom to make all life choice, the existence of personal responsibility, personal decision making, and internal control of life events. Reker describes this dimension as an operational index of degree to which a person perceives to have personal agency in directing his/her life.

*Death Acceptance*: The death acceptance component refers to the absence of fear and anxiety about death and the acceptance of death as a natural aspect of life. According to Reker (1999) this dimension is an operational index of the degree to which a person has achieved death transcendence.

*Existential Vacuum*: The existential vacuum dimension refers to a sense of meaninglessness, the lack of purpose and direction in life. It also refers to boredom, apathy, or feelings of indifference.

*Goal Seeking*: The goal seeking component refers to the desire to get more out of the routine of life, to search for new and different experiences, to welcome new challenge (Reker, 1999).

*Personal Meaning Index (PMI)*: The PMI was designed to provide a more focused measure of personal meaning. The PMI is derived by summing the purpose and coherence dimensions.

*Existential Transcendence*: This subscale is described as a global measure of attitudes toward life that takes into account both the degree to which meaning and purpose has been discovered and the motivation to find meaning and purpose. The person who has achieved existential transcendence has a new perspective on life, has risen above the failures of living, has a good understanding of self, has accepted the prospect of personal death, has an appreciation for the past, present, and future, and views life meaningfully. The ET is derived by summing the scores on the LAP-R dimensions of purpose, coherence, choice / responsibility, and death acceptance and subtracting the scores on existential vacuum and goal seeking (Reker, 1999).

The scale's scores for single dimensions (PU, CO, C/R, DA, EV, and GS) range from 8 to 56, and for the PMI and ET range from 16 to 125 and 80 to 208 respectively. Reker (1999) reported internal consistency coefficients ranging from .77 to .91 across different age groups.

*Sources of Meaning Profile-Revised (SOMP-R)*: The Sources of Meaning Profile-Revised developed by Reker (1988). The SOMP-R is another measure that relates to meaning in life. This scale focuses on the various sources of meaning that individuals derive from their daily lives. It comprises 17 items and each source is rated on a 7-point scale ranging from "not at all meaningful (1)" to "extremely meaningful (7)." A high total score in this measure indicates that the person has a variety of meaningful sources in his/her life. The SOMP-R provides a range of lower-order to higher-order sphere of meaning (Prager, 1996). The measure can be divided to four meaning orientations (levels) including Self-Transcendence, Collectivism, Self-Preoccupation, and Individualism. Self-Transcendence refers to sources that transcend the self and go beyond ego to encompass cosmic or ultimate meaning. Collectivism refers to sources that focus on areas that involve service to other and dedication to a larger societal cause; Individualism refers to sources that focus on self-development, self-growth, and the realization of one's potential; and Self-Preoccupation refers to sources that meet and satisfy the immediate needs of the person (Reker, 2000). The results of psychometric testing have shown that SOMP-R was a reliable and valid measure (Prager, 2001). Research has shown an internal consistency ranging from .71 to .80 and test-retest reliability coefficient of .70 in Canada, Australia and Israel (e.g., Reker, 1988; Prager, 1996).

#### *5.4.2.2 Spirituality and Religiosity Measures*

*Spiritual Scale (King, Speck & Thomas, 2001)*: The Spiritual Scale was designed to measure strength of belief in a spiritual power and spiritual experiences, belief about the hereafter and near death experience. The scale is composed of 6 items on a 10-point scale and the items are related to the practice of faith, influence of power or force, ability to cope, influence on world affairs and natural disaster. High scores in this measure indicate that persons hold strongly to their beliefs and these beliefs play a crucial role in their lives. A Cronbach's alpha of .89 has been reported for this scale.

King et al. (2001) also reported convergent validity of .66 for this scale. The authors claim that this scale was designed specifically to avoid a focus on any one religious system or type of spiritual belief. The Cronbach's alpha of the scale in this study was .84.

*Religious Orientation Scale:* This scale was developed to measure religious orientation for the current study. The items of this scale were adapted from several existing religious scales including Intrinsic Religious Scale (Hoge, 1972), Inventory of Religious Concepts (Dunkel, 1947), and Religious Orientation Scale (Allport & Ross, 1967). Wording of items was changed to be suitable for Muslims. For example, in item 10, Bible was replaced to Qur'an. The scale consisted of 10 items and was rated on a 6-point scale ranging from strongly agree (1) to strongly disagree (6). The scoring for some items (8 and 9) needed to be reversed.

All participants completed the scale. To examine the internal consistency of the scale Cronbach's alpha scores were computed and found to have a good internal consistency in the total sample (n = 298) with a Cronbach's alpha of 0.88. To evaluate the test-retest reliability of the scale, a test-retest correlation was carried out. Forty participants completed the scale on two different occasions (two-week intervals). Results showed a test-retest correlation of 0.90. The findings on relationship between this scale and two other scales such as spiritual scale ($r = .76$, $p < .01$) and a single-item scale (the importance of religion) ($r = .68$, $p < .01$) also showed a good concurrent validity for the scale.

### *5.4.2.3 Psychological Well-Being Measures*

A number of psychological well-being measures were used in this study to assess well-being variables.

*1. The Satisfaction with Life Questionnaire (SWLQ):* The Satisfaction with Life Scale (SWLQ) was designed to measure cognitive-judgmental aspects of global life satisfaction (Diener et al., 1985). The SWLQ is a 5-item scale ranging from 1(strongly disagree) to 7 (strongly agree). The SWLQ is a single factor, multi-item measure with no subscales. Results from a number of studies indicate that the scale has good psychometric properties (see Diener et al. 1985 for review).

*2. The Rosenberg Self-Esteem (RSE):* The Rosenberg Self-Esteem contains ten items that can be used to assess global self-esteem (Rosenberg, 1965). This scale is perhaps the most widely used self-esteem measure in social science research. The scoring for some items (2, 5, 6, 8 and 9) need to be reversed. The scale has good validity and reliability.

*3. Centre for Epidemiologic Studies Depression Scale (CES-D 10)*: The CES-D 10 is a short version of the 20-item CES-D. The CES-D is a self-report scale that was designed for use in epidemiologic surveys to assess the frequency and severity with which symptoms of depression are experienced in the general population (Radloff, 1977). This scale measures the feeling of depression rather than the clinical symptoms of depression (Radloff, 1977). It has been reported a coefficient's alpha ranging from .80 to .90 and test-retest of .40 to .70 for CES-D in general population (Eaton et al., 1998).

*4. The State Hope Scale (SHS):* The State Hope Scale was developed by Synder et al (1996) as an operational instrument to assess the attitude in one's capacity to initiate and sustain actions and attitudes in one's capacity to generate routes to reach goals. The scale is a 6-item self report and participants respond on an 8-points scale ranged from 1(definitely false) to 8 (definitely true). The scale has been shown to have a good validity and reliability (Synder et al, 1996).

*5. Positive and Negative Affect Schedule (PANAS).* The PANAS is designed to measure positive and negative affect. Positive affect (PA) reflects the extent to which a person feels enthusiastic, active, and alert. Negative affect (NA) is a general dimension of subjective distress that subsumes a wide variety of aversive mode state (Watson et al. 1988). The PANAS consists of 20 single words which are rated on a 5-point scale. It has been reported the alpha coefficient ranging from .86 to .90 for PA and .84 to .87 for NA (Watson et al. 1988).

Many studies have been reported a good validity and reliability for the above scales. The Results of the present research regarding the psychometrics properties showed a good reliability and validity for the above psychological well-being measures among the Iranian sample. The Cronbach's alphas were .79 for RSE, .80 for SHS, .81 for CES-D, .82 for SWLQ, .85 for PANAS (N), and .87 for PANAS (P).

The following measures were used to assess the convergent validity of LAP-R.

Life Regard Index (LRI: Battista & Almond, 1973): The LRI is composed of two subscales, Framework (LRI-FR) and Fulfillment (LRI-FU) consisting 28 items, each scale has 14 items. Framework is designed to assess the degree meaningfulness and purposeful. For this research only Framework scale was used to assess the convergent validity. Self-determination Scale (SDS: Sheldon, 1996): A 10-item scale including two subscales, the first is awareness of oneself, and the second is perceived choice in one's actions. Death Attitude Profile-Revised (DAP-R: Wong et al., 1994): A 32-item multidimensional instrument measuring the attitudes towards death. In the current study, the subscale of Death Fear (DF) was used to validate the subscale of Death Acceptance of LAP-R. This subscale measures negative thought and feelings about death.

### 5.4.3 Data Analysis

All quantitative data were analysed using *SPSS Version 14 for Windows*. Data were analysed for each of the main research questions as outlined next.

A number of analyses were carried out to examine the psychometric properties of the LAP-R. Explanatory factor analysis using principle components analysis was employed to examine the structure of the LAP-R. Furthermore, the internal reliability was assessed by using Cronbach's alpha. To examine test-retest reliability of the scales, test-retest reliability was computed by correlating two administrations of the same items in a two week interval. The concurrent validity of the measures was tested by examining the correlation between the scales of LAP-R measure and scales measuring a similar construct. Analyses of age and gender differences in the LAP scales were performed using the independent t-test. Furthermore, Pearson's correlation was used to assess the relationship between the scales of LAP-R and mental health measures.

## 5.5 Results

### *5.5.1 Reliability of the LAP-R*

*Internal Consistency*: Cronbach's alpha scores for total sample and different age and gender groups are presented in Table 8. As can be seen in Table, the Cronbach's alphas for total population range from 0.59 to 0.88. The values were found to fall within an acceptable range for the different dimensions of LAP-R except Goal Seeking (0.59) that was not high.

Table 8: Cronbach's Alpha of the LAP Subscales among Different Age Groups and Across Gender

| LAP subscales | Total | Men | Women | 18-25 | 30-65 |
|---|---|---|---|---|---|
| Purpose (PU) | .79 | .75 | .81 | .80 | .75 |
| Coherence (CO) | .78 | .75 | .82 | .84 | .73 |
| Choice/Responsibility (C/R) | .71 | .69 | .74 | .75 | .69 |
| Death Acceptance (DA) | .79 | .75 | .81 | .84 | .72 |
| Existential Vacuum (EV) | .72 | .72 | .72 | .75 | .70 |
| Goal Seeking (GS) | .59 | .57 | .58 | .49 | .60 |
| Personal meaning Index (PMI) | .88 | .86 | .89 | .90 | .84 |

*Test-retest reliabilities:* Test-retest correlations were computed for the LAP-R dimensions. The test-retest results are presented in Table 9. The various subscales of the LAP-R had a good temporal stability over 2 weeks, with test-retest correlations ranging from .77 to .91.

Table 9: Test–Retest Reliability of Different Scales of LAP-R

| LAP-R Dimensions | Correlation Coefficient |
|---|---|
| Purpose | .91 |
| Coherence | .87 |
| Choice/Responsibility | .90 |
| Death Acceptance | .89 |
| Existential Vacuum | .84 |
| Goal Seeking | .79 |

### *5.5.2 Validity of the LAP-R*

*Factor Analysis:* In order to determine the structure of LAP-R, Explanatory factor analysis with principle component was carried out and five factors were extracted which were then rotated using varimax rotation. As can be seen in Table 10, these five factors collectively explained 41.11% of the total variance in scores. Most items loaded on the factors which were predicted in the original study. Factor 1 accounted for 19.19% of the total variance after rotation. Factor 2 accounted for 7.14% of the total variance after rotation. Factor 3 accounted for 6.31% of the common variance after rotation. Factor 4 accounted for 4.66% of the variance and the fifth factor accounted 4.11% of the total variance.

Table 10: Factor Analysis of the LAP-R Scale

| Scale Items | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| **I. Factor 1 'Personal Meaning'** ($\alpha$ = .88) | | | | | |
| 11) I have a philosophy of life that gives my existence significance | **.80** | .11 | -.21 | -.31 | .14 |
| 13) I have a framework that allows me to understand or make sense of my life | **.68** | .16 | -.16 | -.31 | .21 |
| 15) I have a clear understanding of the ultimate meaning of life | **.65** | .08 | -.27 | -.16 | .24 |
| 7) I have a mission in life that gives a sense of direction | **.58** | .12 | -.15 | -.30 | .27 |
| 2) In my life I have very clear goals and aims | **.50** | .01 | -.22 | -.26 | .18 |
| 12) In thinking of my life, I see a reason for my being here | **.49** | .19 | -.16 | -.23 | .04 |
| 10) I have been aware of an all powerful an consuming purpose towards which my life has been directed | **.45** | .05 | -.15 | -.09 | .33 |
| 1) My past achievements have given my life meaning and purpose | **.43** | .06 | -.14 | -.10 | .11 |
| 3) I have discovered a satisfying life purpose | **.41** | .09 | -.24 | -.39 | .06 |
| 9) The meaning of life is evident in the world around us | **.33** | .11 | -.30 | -.18 | .08 |
| 16) My personal existence is orderly and coherent | **.31** | .13 | -.25 | -.10 | .23 |
| 8) My life is running over with exciting good things | **.30** | .21 | -.23 | -.22 | .16 |
| 4) Basically, I am living the kind of life I want to live | .28 | .19 | -.72 | -.11 | .21 |
| 5) I know where my life is going in the future | .16 | .25 | -.21 | -.10 | .13 |
| 6) In achieving life's goal, I have felt completely fulfilled | .24 | .14 | -.39 | -.29 | .12 |
| 14) I have a sense that parts of my life fit together into a unified pattern | .17 | .10 | -.13 | .03 | .04 |
| **Factor 2 'Death Acceptance'** ($\alpha$ = .79) | | | | | |
| 27) even thought death awaits me, I am not concern about it | .04 | **.81** | -.17 | -.06 | .02 |
| 30) some people are very frightened of death, but I am not | .18 | **.76** | -.21 | -.08 | .07 |
| 28) I would neither fear dath nor welcome it | .01 | **.69** | -.04 | -.15 | .01 |
| 29) since death is a natural aspect of life, there is no sense worrying about it | .19 | **.68** | -.00 | -.02 | .12 |
| 25) I think I am generally much less concerned about death than those around me | .13 | **.66** | -.04 | -.15 | .01 |
| 26) death make little difference to me one way or another | .03 | **.51** | -.10 | .03 | .03 |
| 31) The thought of death seldom enters my mind | .12 | .25 | .04 | .09 | .13 |
| 32) I accept death as another life experience | .32 | .24 | -.10 | -.02 | .11 |

Table 4 continued

| Scale Items | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| **Factor 3 'Choice/Responsibility'** (α = .71) | | | | | |
| 20) Concerning my freedom to make my own choice, I believe I am absolutely free to make all life choices | .07 | .20 | **-74** | -.07 | .28 |
| 21) It is possible for me to live my life in terms of what I want to do | .18 | .16 | **-.50** | -.20 | -.00 |
| 23) When it comes to important life matters, I make my own decisions | .22 | .12 | **-.49** | -.15 | .34 |
| 19) I determine what happens in my life | .16 | .14 | **-.44** | -.09 | .60 |
| 22) my life is in my hand and I am control of it | .09 | .24 | **-.43** | -.15 | .45 |
| 24) I accept personal responsibility for the choices I have made in my life | .21 | .12 | **-.29** | -.21 | .28 |
| 17) I regard the opportunity to direct my life as very important | .28 | .09 | -.21 | -.01 | .12 |
| 18) my accomplishments in life are largely determined by my own efforts | .13 | -.04 | -.08 | .14 | .48 |
| **Factor 4 'Existential Vacuum'** (α = .72) | | | | | |
| 35) I feel lack of and a need to find a real meaning and purpose in my life | -.52 | -.15 | .26 | **.62** | -.03 |
| 34) I feel that some element which I can't quite define is missing from my life | -.10 | -.02 | .22 | **.60** | .11 |
| 33) I seem to change my main objectives in life | -.20 | .00 | -.02 | **.52** | -.00 |
| 37) I have experienced the feeling that while I am destined to accomplish something important, I can't put my finger on just what it is | -.19 | -.10 | .07 | **.51** | .04 |
| 40) Life to me seems boring and uneventful | -.27 | -.13 | .25 | **.37** | .01 |
| 36) I try new activities or areas of interest and these soon lose their attractiveness | -.17 | .00 | .06 | **.33** | .08 |
| 39) I find myself withdrawing from life with an "I don't care" attitude | -.19 | -.01 | .07 | .19 | -.07 |
| **Factor 5 'Goal Seeking'** (α = .59) | | | | | |
| 45) A new challenge in my life would appeal to me know | .01 | .00 | -.06 | -.08 | **.98** |
| 46) I hope for something exciting in the future | -.04 | .04 | -.01 | .06 | **.37** |
| 48) I am determined to achieve new goals in the future | .12 | -.01 | -.07 | -.04 | **.33** |
| 47) I am eager to get more out of life than I have so far | .24 | .05 | -.13 | -.10 | **.31** |
| 44) I feel the need for adventure and "new worlds to conquer" | .26 | -.04 | .01 | -.04 | .10 |
| 41) New and different things appeal to me | .11 | .08 | .04 | .06 | .12 |
| 42) I would enjoy breaking loose from the routine of life | .06 | .02 | .06 | .08 | -.03 |
| 43) I am restless | .08 | -.21 | -.15 | .25 | .24 |
| Eigenvalues | 9.21 | 3.43 | 3.03 | 2.24 | 1.97 |
| % of Variance Explained | 19.19 | 7.14 | 6.31 | 4.66 | 4.11 |

Note: n = 298

*Concurrent Validity:* The results regarding correlation between different dimensions of the LAP-R and the scales of Life Regard Index, Self-determination and Death Fear are presented in Table 11. As can be seen, there were a significant association between different scales of LAP-R scales and different measures such as Life Regard Index (LRI), Self-Determination (SDS), and Death Fear (DF) assessing the similar constructs. The findings indicate a good concurrent validity for different scales of LAP-R.

Table 11: Concurrent Validity of the Scales of LAP

| Subscale | LRI | SDS | DF |
|---|---|---|---|
| Purpose | .66** | .15** | -.28** |
| Coherence | .70** | .19** | -.23** |
| Choice/Responsibility | .40** | .39** | -.20** |
| Death Acceptance | .18** | .14** | -.58** |
| Existential Vacuum | -.58** | -.37** | .31** |
| Goal Seeking | -.07 | .04 | .07 |

** P < .01; * P < .05

*Intercorrelations among the Scales of the LAP-R:* Table 12 shows the inter-correlations among the dimensions of LAP-R for the total sample. As can be seen, the correlations among the dimensions with relevant constructs are positively significant ranging from .21 (CO and DA) to .75 (PU and CO), while inter-correlation between opposite dimensions of LAP-R are negative and statistically significant (PU, CO, C/R, DA and EV). The Goal Seeking subscale correlates very low with other dimensions. The highest correlation was between Purpose and Coherence and Choice/Responsibility (.75, and .67) respectively. The inter-correlations showed that the LAP-R dimensions are simply alternative descriptions of the very similar constructs of personal meaning.

Table 12: Intercorrelation between Subscales of LAP-R (n = 289)

| Subscale | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1. Purpose | _ | | | | | |
| 2. Coherence | .75** | _ | | | | |
| 3. Chance / Responsibility | .67** | .51** | _ | | | |
| 4. Death Acceptance | .26** | .21** | .24** | _ | | |
| 5. Existential Vacuum | -.48** | -.48** | -.26** | -.10 | _ | |
| 6. Goal Seeking | .14* | .04 | .12* | .01 | .17** | _ |

** P < .01; * P < .05

### 5.5.3 *Comparing Mean Scores of LAP Scales across Age and Gender*

An independent samples t-test was used to examine whether there were significant mean differences between two age groups on the Life Attitude Profile. As can be seen in Table 13, results from the independent samples t-test indicated that there was a significant main difference between two age groups in Personal Meaning Index, Death Acceptance, and Goal Seeking. The results revealed no significant age difference on Choice/Responsibility.

In addition, to control the effect of sex on the differences between different age groups on LAP-R scores, a series of two-way analyses of variance (ANOVAs) was performed. The results showed a main effect for age, but there was not a significant effect between personal meaning variables with interaction of age and sex. In other words, the differences between age groups were not moderated by sex. Similarly, the

results on another personal meaning measure–the LRI scale - indicated a significant difference between young and middle-age group.

Table 13: Means, Standard Deviations and t-Test Values on Dimensions of LAP across Age and Gender

| Subscale | 18-26 | | 30-65 | | t | Men | | Women | | t |
|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | | Mean | SD | Mean | SD | |
| Purpose | 39.15 | 7.98 | 40.37 | 7.01 | -1.37 | 39.82 | 7.09 | 39.93 | 7.84 | 0.12 |
| Coherence | 39.18 | 8.35 | 42.85 | 6.57 | -4.14** | 40.93 | 7.46 | 41.37 | 7.76 | 0.49 |
| Choice/Responsibility | 40.35 | 6.82 | 40.49 | 6.86 | -0.17 | 40.69 | 6.55 | 40.41 | 7.00 | -0.34 |
| Death Acceptance | 37.14 | 9.75 | 38.89 | 8.41 | -1.62* | 39.22 | 8.56 | 37.22 | 9.52 | -1.95* |
| Existential Vacuum | 32.38 | 8.53 | 30.83 | 8.11 | 1.57 | 31.84 | 8.30 | 31.20 | 8.34 | -0.66 |
| Goal Seeking | 44.38 | 5.03 | 41.13 | 6.56 | 4.66** | 41.43 | 6.11 | 43.07 | 5.90 | 3.29** |
| Personal meaning Index | 78.27 | 15.49 | 83.22 | 12.49 | -2.98** | 81.11 | 13.65 | 81.73 | 14.57 | 0.37 |

** P < .01; * P < .05

Independent samples t-test also showed that there was no significant difference between the scores of men and women in most dimensions of LAP-R, with only a significant difference in death acceptance and goal seeking. As can be seen in the Table 13, females had a higher mean of goal seeking than males do. On the other hand, men had a higher score on death acceptance than women. Further analysis indicated significant differences on goal seeking variable only for young people. Similarly, results on the LRI scale revealed no significant differences of personal meaning between male and female. Furthermore, to control the effect age on the differences between different age groups on LAP-R scores, a series of two-way analysis of variance (ANOVAs) was performed. The results showed a main effect for sex, but there was not a significant effect between personal meaning variables with interaction of age and sex. In other worlds, the differences between age groups were not moderated by sex.

### *5.5.4 Relationships between the Scales of Personal Meaning and Religiosity/Spirituality Measures*

The correlations of the scales of LAP-R with religiosity/spiritual measures are shown in Table 14. As be can seen, religiosity correlated with some of the dimensions of LAP-R, including Purpose, Coherence, Choice/Responsibility, Existential Vacuum and Personal Meaning Index but it did not correlate with Death Acceptance, and Goal Seeking. The highest correlation was with coherence. Similarly, the LRI was significantly correlated to religiosity/spirituality measures. The partial correlation was used to examine the correlation of spirituality and personal meaning controlling for age. Relationships remained, even when age was controlled.

Table 14: Correlations between the Subscales of the LAP-R and Religiosity/Spirituality Measures

| Subscale | Spiritual Scale | Religious Orientation Scale |
|---|---|---|
| Purpose | .25** | .25** |
| Coherence | .45** | .44** |
| Choice/Responsibility | .14* | .12* |
| Death Acceptance | -.01 | -.03 |
| Existential Vacuum | -.21** | -.20** |
| Goal Seeking | -.05 | .05 |
| Personal Meaning Index | .37** | .37** |

** P < .01; * P < .05

### *5.5.5 Relationship between Personal Meaning and Psychological Well-Being*

The relationships between personal meaning dimensions and psychological well-being measures are presented in Table 15. As can be seen, the correlations were generally at moderate levels. The life satisfaction, hope, self-esteem, and positive affect variables showed a significant positive correlation with purpose, coherence, personal meaning and existential transcendence and a significant negative correlation with the existential vacuum. On the other hand depression had a negative significant correlation with personal meaning variables and a positive correlation with existential vacuum. Furthermore, the Purpose subscale had the strongest association with the well-being measures, while the Goal Seeking dimension had the lowest correlation.

Table 15: Correlations between the Scales of LAP-R and Psychological Well-Being Measures

| **Subscale** | Life-Satisfaction | Self-Esteem | Depression | Hope | PANAS-P | PANAS-N |
|---|---|---|---|---|---|---|
| Purpose | .62** | .56** | -.45** | .63** | .53** | -.42** |
| Coherence | .45** | .46** | -.33** | .59** | .45** | -.35** |
| Choice | .46** | .35** | -.31** | .46** | .38** | -.30** |
| Death Acceptance | .21** | .15* | -.25** | .18* | .13* | -.28** |
| Existential Vacuum | -.45** | -.46** | .41** | -.39** | -.39** | .44** |
| Goal Seeking | -.06 | -.05 | .03 | .00 | .12* | .24** |
| Personal Meaning Index | .57** | .54** | -.41** | .65** | .52** | -.41** |

** P < .01; * P < .05

### *5.5.6 Sources of Meaning across Age and Gender*

Table 16 presents the sources of meaning across different age groups and gender. The univariate analysis showed that of 16 sources of meaning, eight showed significant age differences As can be seen, there were significant difference in preserving values, and ideals, interest in human right, altruism, personal growth, interest in social cause, preservation culture and tradition, leaving legacy, and financially secure between two age groups. All these sources of meaning except financially secure and personal growth were more important for middle-aged respondents than their younger counterparts. In addition, two-way analyses of variance were computed and the results showed no moderating effect by the gender on the differences between the two age groups.

Table 16: Means, Standard Deviations and t Values of the Sources of Meaning for Different Age and Gender Groups

| | 18– 26 | | 30 - 68 | | | Men | | Women | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SOMP Items | Mean | SD | Mean | SD | t | Mean | SD | Mean | SD | t |
| 1. Leisure Activities | 4.98 | 1.65 | 5.03 | 1.64 | -.42 | 4.83 | 1.72 | 5.16 | 1.55 | 1.76 |
| 2. Basic Needs | 5.67 | 1.39 | 5.90 | 1.54 | -1.46 | 5.65 | 1.56 | 5.94 | 1.36 | 1.94 |
| 3. Creative Activities | 5.20 | 1.63 | 4.81 | 1.94 | 1.63 | 4.70 | 1.86 | 5.25 | 1.74 | 2.10** |
| 4. Personal Relationship | 5.38 | 1.59 | 5.66 | 1.44 | 1.50 | 5.33 | 1.55 | 5.62 | 1.57 | 1.55 |
| 5. Acknowledge for Achievement | 5.35 | 1.70 | 5.26 | 1.73 | 0.42 | 5.05 | 1.75 | 5.54 | 1.62 | 2.70** |
| 6. Personal Growth | 6.28 | 1.12 | 5.75 | 1.43 | 3.36** | 5.81 | 1.41 | 6.19 | 1.18 | 2.54** |
| 7. Religious Activities | 4.66 | 2.10 | 4.92 | 1.83 | -1.11 | 4.43 | 2.03 | 5.06 | 1.88 | 2.77** |
| 8. Interest in Social Causes | 5.24 | 1.61 | 5.60 | 1.46 | -2.06** | 5.28 | 1.65 | 5.58 | 1.46 | 1.67 |
| 9. Altruism | 6.06 | 1.19 | 6.41 | 0.98 | -2.69** | 6.24 | 1.10 | 6.29 | 1.07 | 0.40 |
| 10. Preserving Values, Ideals | 5.93 | 1.38 | 6.43 | 1.01 | -3.66** | 6.17 | 1.13 | 6.25 | 1.26 | 0.59 |
| 11. Preservation of Culture | 5.39 | 1.61 | 5.80 | 1.30 | -2.49** | 5.59 | 1.50 | 5.62 | 1.43 | 0.20 |
| 12. Leaving a Legacy | 4.80 | 1.83 | 5.44 | 1.65 | -3.21** | 5.02 | 1.87 | 5.25 | 1.65 | 1.11 |
| 13. Financially Secure | 5.90 | 1.30 | 5.47 | 1.87 | 2.17** | 5.53 | 1.72 | 5.81 | 1.54 | 1.48 |
| 14. Interest in Human Right | 6.07 | 1.13 | 6.43 | 1.11 | -2.75** | 6.16 | 1.27 | 6.36 | 1.02 | 1.57 |
| 15. Hedonistic Activities | 4.58 | 1.80 | 4.31 | 1.74 | 1.36 | 4.51 | 1.74 | 4.40 | 1.77 | -0.53 |
| 16. Material Needs | 4.10 | 2.01 | 4.31 | 1.81 | -0.77 | 4.21 | 2.06 | 4.16 | 1.85 | -0.23 |

** P < .01; * P < .05

The mean, standard deviation scores and t values of sources of meaning for men and women are presented in the Table 16. As can be seen there were significant differences between men and women in creative activities, acknowledge for achievement, personal growth and taking part in religious activities. In all sources of meaning, women had higher scores than men. To examine the moderating effect of age on the differences between gender groups, the sources of meaning scores were subjected to two-way analyses of variance (ANOVAs). The findings of the interaction indicated that the differences between two sex groups were not moderated be the age variable.

## 5.6 Discussion

The primary purpose of this study was to examine the reliability and validity of LAP-R in a sample of college students and teachers from a different age and gender groups. In this section, the findings on the psychometric properties of LAP-R, personal meaning across age and gender, and the relationships between personal meaning and religiosity/spirituality will be discussed.

### *5.6.1 Psychometric Properties*

As already mentioned, the results of this study indicated that most dimensions of LAP-R except Goal Seeking had good internal consistency and stability. These findings are in agreement with the original study (Reker, 1999) and other research regarding reliability of the scale (Dunn, 200; Reker & Fry, 2003). Furthermore, several items reduced the reliability of some of scales including DA and GS. Some of these items were biased and their contents were in conflict with Islamic teachings. For example, the respondents scored low in item 44 (the thought of death seldom enters my mind) and item 15 (death makes little difference to me). This study highlighted the point that several items on different dimensions were not suitable for Iranians. For example, participants' mean was low for the item "I know where my life is going in the future". According to Islamic and many other religions' teachings, the human being does not know about his/her own future and only God knows. Furthermore, the content of a few items seemed irrelevant to the construct of personal meaning. For example, item 21 (I am restless) seems be related to anxiety rather than goal seeking. Therefore, when these items were removed, Cronbach's alpha was increased. For example, when item 21 (GS), 15 (DA), and 7 (DA) were omitted; the Cronbach's alpha was increased to 0.63, 0.80, and 0.81 respectively.

The findings of good internal consistency and stability support the application with these amendments of most dimensions of the LAP-R on the Iranian population. Furthermore, the results of the study showed that the items of LAP-R were loaded on five factors; therefore, the findings support the original research indicating the LAP-R to have five dimensions. In general, the present findings regarding the factor analyses are comparable to the results reported by Reker (1999). However, the factor analysis showed that several items failed to load on the factors the authors predicted. It may

reflect that these items may assess different constructs or that the research sample perceives the constructs differently. For example, items 4 (I am living the kind of life I want to live) did not load on factor I (personal meaning) as the author reported, it was loaded on choice factor with a correlation of 0.72. As it can be seen from the content of the item, it seems to be more related to choice rather than purpose. Furthermore, item 21 (I am restless) did not load on the goal seeking factor. It seems that the content of this item is more related to anxiety rather than goal seeking.

As already noted, positive correlation between the different scales of LAP-R and the measures which assess similar constructs such as Life Regard Index, Self-determination, and Death Fear indicate a good convergent validity of the LAP-R. Furthermore, the positive association between the scales of LAP-R and psychological well-being support the construct validity of LAP-R. Results regarding reliability and construct validity of scale indicate that the LAP-R can be applied to the Iranian population. This research highlighted the fact that several items in different dimensions of the scale such as Death Acceptance are not suitable for Muslim population as they are in conflict with Islamic teachings.

### *5.6.2 Life Attitudes across Age and Gender*

*Personal Meaning*: The results of the current study showed a significant difference between two age groups in both personal meaning measures including PMI and LRI. The middle-aged respondents scored much higher than their younger counterparts in two scales. This finding is consistent with previous research. For instance, Reker (1999) reported a significant difference between different age groups with higher scores for older adults compared to the younger participants.

*Choice/responsibility*: Results indicated no significant difference on choice/responsibility dimension between the two different age groups. These findings are similar to those of Reker and Wong (1988).

*Death Acceptance*: The results of the current research indicated that there was a small but significant difference on death acceptance in terms of age. The finding of this research, indicating the middle-aged scored more highly on DA, is consistent with the

wider literature which indicates that acceptance of death increases with age (e.g., Klaish & Reynolds, 1976; Reker et al., 1987).

*Existential Vacuum*: There were no significant differences on EV between the two age groups. These results are contrary to the original study in which young people scored higher than middle-aged and older adults in EV (Reker, 1999). One possible explanation is that the content of some items may influence the results. These items were not perceived as indicators of existential vacuum. Furthermore, some items may be vague for respondents to understand, for example the item "*I feel that some element which I can't quite define is missing from my life*" seemed to be unclear.

*Goal Seeking*: As noted already, young respondents scored much higher than middle-aged. This finding is in agreement with the previous research that young people seek adventure and excitement more than middle-aged and older persons (Reker, 1999). It would be difficult to interpret the findings, because of low reliability and construct validity of this scale.

The results of the study did not show a significant sex difference on personal meaning. These results are consistent with Meire and Edward's (1974) study using PIL that reported no sex differences. Also when one considers gender differences on PMI, the differences were not significant between men (M = 81.11) and women (M = 81.73), whilst in Reker's study women had higher score (M = 58.00) than men (M = 55.10). Findings of the current study support the hypothesis that sense of meaning increases with age and confirmed that there are no significant differences between men and women.

### *5.6.3 Relationships between Personal Meaning Variables and Religiosity/Spirituality*

Results of the present study demonstrated that the religiosity/spirituality measures were associated with the personal meaning variables. This work confirms that for this research sample, religious faith was an important factor in their sense of meaning and purpose. Regarding the association of religiosity with personal meaning variables, coherence showed the highest correlation ($r = .45$, $p < .01$). This indicates that religion provides a framework of meaning for Iranians. Therefore the results of study are similar

to previous research (e.g., Coleman et al., 2002; Emmons, 2003; Frankl, 1963; Pargament, 1997; Zika & Chamberlain, 1992).

### *5.6.4 Relationship between Personal Meaning and Psychological Well-being*

The overall results from this study lead to the conclusion that there is a substantial relationship between most LAP-R dimensions and psychological well-being variables. The results support the previous studies and theories indicating having a sense of meaning is associated with positive mental health outcomes such as high self-esteem, life satisfaction, positive affect, and hope and a lack of the meaning of life is related to negative psychological outcomes such as depression and negative affect (see Dunne, 2001, Reker et al., 1987; Zika & Chamberlain, 1988). The Goal Seeking scale was the only dimension which did not correlate with well-being measures. As already noted, these results may reflect some structure weakness of this dimension.

### *5.6.5 Sources of Meaning across Age and Gender*

The results indicated that for young participants, personal growth and financial security was more important than their middle-aged counterparts. The findings regarding personal growth are consistent with the findings of Dittmann-Khohli et al., (2000) indicating that young people were concerned about personal growth more often than the elderly. These cognitions are indicative of a search for identity among the young. Furthermore, a possible explanation may be the higher education of students. Results also showed that young participants rated financial security as more important than middle age groups. With regard to the high rate of unemployment among the young people (10%), they seemed to be more concerned about their job future and financial security than middle-aged people who were employed. As the results demonstrated, the middle aged respondents scored significantly higher than the young on preservation of culture/tradition, preserving values, ideals, interest in social cause, and altruism. These findings are consistent with theory and previous studies indicating that sources of meaning changes with age (e.g., Prager, 1996, 2001; Reker, 1988). Also, higher scores of the middle aged on the above sources in this study supports the literature that people who are middle-aged onward in Eastern societies are taught to

preserve the values, ideals, tradition and to leave a legacy for the next generation (e.g., Kim, 2001).

With regard to the gender effect on sources of meaning, as noted already females rated creative activities, religious activities, personal growth, acknowledge for achievement as significantly more meaningful compared to males. These results support previous research that females regard religion as important (e.g., Ranst & Marcoen, 2000; Reker, 1988). Regarding personal growth, it seems that in Iran, women are struggling to find a new role in society and therefore, personal growth has become important for them. For example, they are a large proportion of students at universities. In addition, this pattern in sources of meaning reflects the traditional female sex-role of expressiveness, affiliation, and nurturance.

### *5.6.6 Comparison with Data Sets Collected Elsewhere*

The respondents' scores on PMI in the current study for both age groups are higher than in previous literature reported in Canada and the UK involving similar age categories (see Dunn, 2001; Reker et al., 1987). As noted already, the PMI has two subscales. The participants scored higher in Coherence than Purpose. The content of the Coherence scale is more related to global or existential meaning, while the content of the Purpose scale is more related to the situational and specific meaning. It is postulated that religious individuals have a high sense of existential and global meaning. It reflects the influence of religion on the daily life of many Iranians (e. g., National Youth Organization, 2005)

Regarding the choice/responsibility variable, the total score for both age groups was lower compared with studies conducted by Reker (1999) and Dunn (2001) (with total mean of 45 and 44 respectively), and these findings reflect some cultural features that participants, particularly, that young individuals cannot have everything they want. For example, single girls cannot live alone because it is not accepted by the culture. Iranians' scores in death acceptance were higher than for Canadian and British samples. This reflects the fact that religious individuals come to term with death better. The participants' mean scores in this research on Existential Vacuum were higher than Reker's study (M = 27 for 18-25 years, M = 25 for 25-60 years) and also UK

participants (M = 29 for 20-25 years, M = 28 for 35-50 years). A possible explanation for this result may be that Iranians perceived some items differently. The content of some items did not seem to reflect existential vacuum for Iranians. For example, item "*I daydream of finding a new place for my life*" can be perceived positively. In the Goal Seeking variable Iranians were very similar to the Canadians and British.

Regarding sources of meaning, like the Canadians (Reker, 1988) and Australians (Prager, 1996), the Iranians gave high rankings to preserving human values and ideals (6.21) and personal growth (M = 6.08) in a 7-point scale in all ages. Furthermore, leisure activities (M = 5.00) were not very important for Iranians, while this activity was the third most important for Canadians (M = 6.00) for all ages. The Iranians may view leisure differently. The Iranians viewed religious activities as more important (M = 4.66) than the Canadians (M = 3.94) and the Australians (M = 3.68). They rated it as moderately meaningful. Religious activities did not appear to be as important as other sources of meaning. However, it is important to note that Iranians perceived religious activities to be additional to obligatory religious duties, such as prayer. Also leaving a legacy for the next generation was more important for the Iranians (M = 5) than for the Canadians (M = 4.23) and the Australians (M = 3.76). It indicates the importance of this task for Muslim people. In general, the importance of sources of meaning for the Canadians and the Australians were much more similar to one another and contrasted with the Iranians.

## 5.7 Limitations and Future Directions

As the personal meaning concepts are shaped by cultural contexts, the adaptation of these concepts to a different language may change some of the meanings. Consequently, an attempt was made to make the appropriate adaptations, but one cannot be certain that research measure (LAP-R) was comprehended in an identical way as by Western samples. Further research with subjects of different cultural and linguistic backgrounds, should consider testing for differences in the comprehension of these items. Furthermore, this study was conducted among educated individuals; therefore, results cannot be generalized to the general Iranian population. For future studies it would be useful to recruit more heterogeneous sample. In addition, qualitative research needs to explore the unique perception of the meaning of life held by Iranians.

## 5.8 Conclusions

The findings of the present research showed that most dimensions of the LAP-R except Goal Seeking had good reliability and validity for the Iranian sample. The factorial analysis of the scale also showed that most items of the scale were loaded on five factors as the author of the scale (Reker, 1999) suggested. However, the study also highlighted the fact that several items were not suitable for Iranian people. The results also indicated that the middle aged respondents had a higher sense of personal meaning compared with their young counterparts and there were significant associations between personal meaning variables, psychological well-being, and religiosity/spirituality. These associations were consistent with those observed in Western studies.

# Chapter Six: Studying Religion and Personal Meaning in the Lives of Iranian War Veterans

## 6.1 Introduction and Chapter Overview

Previous research has demonstrated the beneficial effects of religion and spirituality on the health of people. The majority of these studies have been carried out within Judea/Christian context. Very little is known on the influences of religion and spirituality on the coping of Muslim people facing difficult situation. This research makes an attempt to explore how religiosity helps a group of disabled veterans to cope with distress.

Research has documented that poor physical health represents a stressor that mobilises higher levels of positive and negative religious coping and people with physical health problems are more likely to use religious/spiritual beliefs and practise to cope with their situation (Pargament & Hahn, 1986). Furthermore, researchers have argued that war zones create more traumatic experiences than other traumatic events such as car accident (Solomon et al., 1994). Therefore, war veterans with physical disability appear to be a suitable sample for the purpose of this research.

This chapter addresses contextual and background factors of the Iran-Iraq war including factors influencing Iranian veterans' perspective on war such as the sanctification of the war. Furthermore, the concept of PTSD and epidemiological studies of combat veterans in general will be described followed by a discussion of PTSD risk factors. The current chapter also reviews briefly the coping strategies used with traumatic experience. Finally, studies on Iranian veterans will be reviewed followed by a commentary on the limitations and implications of this research area.

## 6.2 Iran-Iraq War

The Iran-Iraq war, also called the "Imposed War" in Iran and also the "Sacred Defence," was a war between the armed forces of Iraq and Iran that lasted from September 22, 1980, until August 20, 1988. The war began when Iraq invaded the south west of Iran on 22 September 1980. The conflict saw early successes by the Iraqis, but before long they were repulsed and the conflict stabilised into a long war of attrition. In

a prolonged and sustained effort, planned and carried out under the leadership of the army, and combining conventional warfare with the revolutionary zeal of the Pasdaran (Revolution Guards) and the Basij (Volunteer Military), Iran managed to drive Iraqi forces from its territory.

The war was extremely costly; one of the deadliest wars since the Second World War in terms of casualties. It has also been called one of the longest conventional wars of the 20th century. The number of casualties is still in dispute, with an estimated 400,000 killed and perhaps 700,000 wounded on both sides and stalling economic development and disrupting oil exports. As the war continued, Iraq's defence grew increasingly desperate. The armed forces used Chemical and Biological Weapons against Iranian troop concentrations. Iraq also widened the war to civilian targets, launching missiles against Iranian cities.

It is believed that the most widespread and most open use of chemical weapons on a battlefield in recent decades was by Iraq in its conflict with Iran (Sidell et al., 1996). According to Iranian government estimates, Iran sustained approximately 387 chemical attacks during the war and 100, 000 Iranian military personnel and civilians were exposed to chemical weapons during the war. The official estimate did not include the civilian population contaminated in bordering towns, many of whom have developed blood, lung and skin complications (Muhammadi & Nori, 1992). It is believed that Iran is among the world's countries most afflicted by weapons of mass destruction. Chemical weapons had not previously been widely used in any major war since World War I (Sildell et al., 1997).

The experts deployed from the UN identified mustard and nerve agents. The mustard is a powerful irritant and blistering agent that damages the skin, eyes, and respiratory tract. Other conditions that can result from mustard gas exposure are: laryngitis, chronic bronchitis, emphysema, asthma, chronic conjunctivitis, and corneal opacities. The nerve agent is a liquid that even short exposure to small concentration of its vapour can result in almost immediate symptoms, felt firstly in the eyes (as a persistent contraction of the pupil) and chest (as a tightness or asthma-like constriction). If a lethal dosage has been taken up a characteristic sequence of toxic manifestations ensues, some of great violence, including running nose, sweating, involuntary urination

and vomiting, twitching, convulsions, paralysis and unconsciousness (Robinson & Goldblat, 1984).

According to Iranian official reports, nerve gas agents killed about 20,000 Iranian soldiers immediately. Of the 80,000 survivors, some 5000 seek medical treatment regularly and about 1000 are still hospitalised with severe or chronic conditions. Many others were hit by Mustard gas. Of a group of 233 severely injured Iranian soldiers sent to Western European hospitals by the Iranian government for treatment during the War, 95% had airway involvement, 92% had eye signs and symptoms, and 83% had skin lesions. In a series of 535 Iranian casualties, including civilians, admitted to a dermatology ward, 92% had skin lesions and 85% had conjunctivitis; of the total number of patients, 79% had erythematic and 55% had blisters (for a review see Hiltermann, 2004; Sidell et al., 1997).

It seems that Iranians' involvement at war had a different character compared to many other conflicts. The war was imposed on Iran immediately after the revolution which had been named an Islamic revolution and majority of Iranian people had supported it and also it was led by the Ayatollah Khomeini, a very powerful and spiritual figure.

The Iraqi invasion galvanised the unique combination of religious zeal and deep-rooted nationalist sentiment generated by the Islamic Revolution, and made Iranian morale stronger than Iraqi at both the operational and the national levels. The strong motivation of the Iranian troops, particularly the Islamic Revolutionary Guards and Paramilitary volunteers had a devastating effect on Iraqi morale (Karsh, 2002). Kashi identifies emphasis the values of martyrdom, purity and devotion, and spiritual rewards in the afterlife as the most important elements of the culture of war propagated in Iran (cited in Farhi, 2004). There is no doubt that this discourse was a useful one in mobilizing volunteers to take part at war. In the cities, the locale from which volunteers were deployed to war and stations for the mobilization of Basij forces, the broadcast of war chants from the media, and ceremonies held for the funerals of war martyrs together reflected the encroachment of the values of war front into the daily life of all Iranians.

The war to Iranians was described as a trial of Iranian national resolve and commitment and as a sacred crusade to protect their territory and revolution from the Baath regime and its leader, Saddam Hussein. It was a relentless and uncompromising struggle against a vicious enemy, stretching to its limits Iran's readiness for suffering, self-sacrifice and martyrdom (Karsh, 2002).

Iran has identified the eight-year war as the sacred defence and a moral test more than a technical or a material one. It has, therefore, regarded the war as the ultimate challenge, an ennobling ritual to be met and transcended, on the road to a victory that is ideological and moral more than it is military or political (Chubin & Tripp, 1988). They sacrificed their life and livelihood in order to save the nation from Iraqi aggression. Many volunteers went to the front for a purpose beyond the war, for some veterans the front was an occasion to live the ideal life for which the Islamic revolution was made. Brotherhood, equality, simplicity, purity and joy, as well as spiritual cleaning were important values, none of which went against the simple pleasures and duties of everyday life that could even be found and cherished at the front (Farhi, 2004).

Farhi (2004) has quoted the view of a field commander about the contrast between the front line and the cities even during the war in her article. The commander noticed that "when soldiers were given release time to visit their families, many of them ended up coming back sooner than their allotted time. The language used to describe the experience in the cities was one of being *gharib"* (a combination of being alien and lonely). Part of this feeling had to do with the changed atmosphere but also with the fact that many in the cities could not understand the commitment the volunteers had to the war. The kind of constant attention that was being given to the religious and spiritual experience of these young volunteers may have given the impression to others outside the front that these volunteers had something missing in their heads.

The Iranians have defined defending their land as a religious, Islamic and national duty and described those killed as martyrs. This gave Iranians motives to take part in the war. When Iranian military troops were asked about their motive to take part in the war, the majority of them mentioned "religious" and "national" duty as a very important reason which motivated them to volunteer for war. According to a survey conducted by Mohajer and Norbala (1990) more than 88% of war veterans stated religious motives

and defending their country as significant reasons to volunteer at war. Muhammadi & Nori (1993) also surveyed the motives of veterans to involve at war, about 90% stated religious duty. In another survey on 1540 Prisoners of War, majority (93%) mentioned religious and national motives as reason for involving at war (Mohajer & Norbala, 1990). According to religious teachings, if someone is killed when defending his territory he or she is martyr. The use of such evocative symbols as martyrdom and the importance of the spiritual over the material mobilized a huge wave of volunteers.

The Iranian war veterans had come from different military forces, including the Regular Army (the majority of them did their service as compulsory duty), Islamic Revolution Guards (Pasdaran), and Basij Paramilitary. Most veterans took part in war to defend Iran were volunteers *Basiji* and had come from lower-middle working class backgrounds and with a religious background. The *Basij*, paramilitary volunteer forces, come under the control of the Revolutionary Guards. They had grown up in the religious families and were close to 3 million volunteers in the paramilitary force receiving training. The majority of veterans (about 70%) were young aged between 16 to 25 years old and single. They were ideologically committed troops (some members even carried their own shrouds to the front in the expectation of martyrdom) that fought bravely despite inadequate armour support. Iranian war veterans held a strong national and religious reason for their fighting alongside maintaining the national dignity compared with other war veterans.

As a result of the war with Iraq, the number of people with disabilities in Iran, particularly those suffering from orthopaedic problems, has rapidly increased. They were categorized as *janbaz*, literally meaning those who were willing to lose their lives for some cause. The government created a special programme to assist these disabled war veterans under the Foundation of Martyrdom and Sacrifice. The Foundation is officially responsible to provide the welfare and services to the disabled and injured veterans and the families of the killed people. It is believed that as many as 30% of those injured in the war refuse to seek any help from the government because the pursuit of "material rewards" undermines the whole notion of serving at the front for the sake of God's pleasure. Furthermore, many families of the killed ones refuse to receive any pension from the government for that they believe their loved ones were killed for God's sake.

## 6.3 Post-Traumatic Stress Disorder (PTSD)

Post-traumatic stress disorder (PTSD) is an anxiety disorder that results from intense horror, fear, or helplessness in response to very traumatic events, such as military combat, violent personal assaults, severe vehicle accidents, natural disasters, bearing witness to the assault or serious injury of another person, or hearing about serious harm or death of a close relative or friend (Joseph et al., 1997).

PTSD is defined in DSM-IV-TR (American Psychiatric Association, 2000) as:
The development of characteristic symptoms following exposure to an extreme traumatic stressor involving direct personal experience of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity (criterion A1). The person's response to the event must involve intense fear, helplessness, or horror (criterion A2). The characteristic symptoms resulting from the exposure to the extreme trauma include persistent re-experiencing of the traumatic event (criterion B) through recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions (criterion B1), recurrent distressing dreams of the event. (criterion B2), acting or feeling as if the traumatic event were recurring (criterion B3), intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event (criterion B4), or physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event (criterion B5). There must be persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (criterion C) through at least three from: efforts to avoid thoughts, feelings, or conversations associated with the trauma (criterion C1), efforts to avoid activities, places, or people that arouse recollections of the trauma (criterion C2), inability to recall an important aspect of the trauma (criterion C3), markedly diminished interest or participation in significant activities (criterion C4), feeling of detachment or estrangement from others (criterion C5), restricted range of affect (e.g., unable to have loving feelings) (criterion C6), sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span) (criterion C7). There should be persistent symptoms of increased arousal (criterion D) through two of the following: difficulty falling or staying asleep (criterion D1), irritability or outbursts of anger (criterion D2), difficulty concentrating (criterion D3), hypervigilance (criterion D4), or exaggerated startle response (criterion D5). The full symptom picture must be present for more than 1

month (criterion E), and the disturbance must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning (criterion F).

### 6.4 Epidemiological Studies on Combat Veterans of Previous Wars

There have been reported different rates for the prevalence of mental health disorders and PTSD in various wars. Most research on combat effects has been conducted on Vietnam veterans (e.g., Solomon et al., 1994). In a comprehensive survey of the prevalence of PTSD among Vietnam veterans, the U.S. National Vietnam Veterans Readjustment Study (NVVRS) reported PTSD prevalence rates of 15% of all male Vietnam veterans nearly 20 years after the war (Kulka et al., 1991). Researchers concluded that Vietnam veterans with the greatest exposure to combat had the highest rates of PTSD.

In another survey on Vietnam veterans, Hamilton and Canteen (1987) reported that 16% of a sample of naval veterans met PTSD criteria. Similarly, Hunt and Robbins (2001), surveying a large number of UK veterans, involved in World War II and Korea War, reported that 19% scored above both the clinically derived PTSD cutoff point and the GHQ. Moreover, Stretch (1991) and Orner (1993) reported the prevalence of PTSD among combat veterans between 15% and 60%. Kaylor et al., (1987) conducted a meta-analysis of 67 studies on Vietnam veterans appearing in the literature from 1972 through 1985.

With regard to the war veterans with disability, it has been reported that Anxiety and PTSD were two to four times higher in combat veterans with disability than in other veterans. Higher anxiety levels in patients with PTSD resulted from still unprocessed traumatic experiences and unsuccessful adaptation to their physical disabilities (Gregurek et al., 2001). Similarly, Ismail et al., (2002) compared the prevalence of psychiatric disorders among war veterans, veterans with disability and non-deployed armed forces of UK Gulf war, Bosnian, and Era veterans. In their study, Gulf veterans with disability were significantly more likely to have depressive, anxiety, somatoform, and sleep disorders than were veterans with no disability. Any common psychiatric disorder (depression, anxiety, and alcohol related disorders) was around two and half times more common in Gulf veterans with disability than it was in Gulf with no disability veterans. The rates for most psychiatric disorders were similar between Gulf

veterans with disability and non-Gulf veterans with disability. The rates for PTSD were similarly low in all three groups.

Unwin et al., (1999) reported that UK Gulf war veterans experienced an excess of self-reported morbidity in comparison with those who were not deployed. Moreover, Proctor et al., (1998) in a study found a greater prevalence of reported symptoms in both Persian Gulf-deployed cohorts compared to the non-deployed cohort. They reported that Persian Gulf-deployed veterans were more likely to report neurological, pulmonary, gastrointestinal, cardiac dermatological, musculoskeletal, psychological and neuropsychological system symptoms than non-deployed veterans. In a survey, Kang et al., (2000) compared the health of 15000 deployed veterans with 15 000 non-deployed veterans. The survey found that deployed veterans reported a higher prevalence of self-reported medical conditions and symptoms than non-deployed veterans. The most commonly symptoms reported by Gulf veterans included fatigue, muscle/joint pain, headache, difficulty concentrating, memory loss, sleep disturbance, and skin rash.

Rosenheck & Fontana (1994) investigated PTSD outcomes for those who had suffered from different types of trauma including combat, civilian terrorism, and work or traffic accidents. Their findings indicated that battlefield-related trauma was most likely to result in PTSD. Research focused on combat veterans has also found that increased number and severity of combat experiences are associated with a greater likelihood of PTSD. Among Gulf War veterans, more severe combat exposure has correlated with a greater likelihood of having PTSD (Sutker et al., 1995; Wolfe et al., 1999).

In a recent study that was conducted just before the military operations in Iraq and Afghanistan, Hoge et al., (2002) found that at least 6% of all U.S. military service members on active duty received treatment for a mental disorder each year. In a recent study, Hoge et al., (2004) also found that about one in eight troops fought in Iraq reported symptoms of PTSD. The survey also showed that less than half of those with problems sought help, mostly out of fear of being stigmatized or hurting their careers. The survey of Army and Marine combat units was conducted a few months after their return from Iraq or Afghanistan. Most studies of past wars' effects on mental health

were done years later, making it difficult to compare the latest results with those from the Vietnam or Persian Gulf wars.

*Long-Term Effects of Combat Experiences*

Many studies have been carried out on veterans to investigate the long effects of war experiences (e.g., Hunt & Robbins, 2001b; Solomon et al., 1994). The National Vietnam Veterans Readjustment Study (NVVRS) reported a 15% PTSD rate among Vietnam veterans one or two decades after service. Furthermore, National Comorbidity survey found a 7.5% lifetime prevalence of PTSD across all types of traumatic experiences and estimated that the condition persists over many years for about one third of all PTSD cases, irrespective of treatment (Kulka et al., 1990).

Hunt and Robbins (2001b) investigated the long-term consequences of war on British War World II and Korean War veterans. Their study demonstrated that even over 50 years after war many veterans experienced problems relating to their war experiences. Thirty-five percent of the veterans were examined in their research scored above the cut-off for GHQ compared to the 8–12% identified in this age group. In their study, veterans who had a war-related physical illness or disability experienced greater psychological distress. Psychological distress was in part directly related to particular experiences, but intrusion and avoidance both played an important role as mediating variables.

## 6.5 Risk Factors of PTSD

It is believed that the severity of the trauma is not the only determinant to experience PTSD. Considerable research has found that not all individuals exposed to trauma or potentially traumatic situations continue to experience enduring symptoms of PTSD over long periods (Benotsch et al., 2000; Joseph et al, 2000). Researchers have argued that response to stress can be hypothesized to be primarily a function of two factors: the severity of the stressor experienced and the resources available to cope with stressor (Benotsch et al., 2000; Creamer et al., 1992). Exposure to high levels of stress during war zone service appears to be significantly influenced by available enduring personal and environmental resources including personality factors such as hardiness and coping strategies (e.g., Bartone, 1999; King et al., 2001), and environmental

resources such as perceived social support and positive family relationships (Benotsch et al., 2000., Hunt & Robbins, 2001a).

With regard to the effect of hardiness as a coping resource, King et al., (1998) in a study on a sample of 1632 Vietnam veterans, investigated the role of several post-trauma resilience-recovery factors, along with war zone stressors, in accounting for current PTSD symptomatology. They found hardiness as a strong direct predictor of PTSD, when compared with the other latent variables, resilience-recovery factors as well as war zone stressors. Similarly, Zarkin et al., (2003) assessed the role of hardiness and attachment style, as personal resources in adjustment to stress of prisoners of war and combat veterans. They found that both hardiness and attachment style had a direct main effect and were inversely related to PTSD and psychiatric symptomatology.

A number of pre-trauma risk factors for the diagnosis of PTSD have also been suggested by other authors (e.g., Rundell & Ursano, 1996). These factors include psychiatric predisposition, parental poverty, early-life separation or divorce of parents, childhood behaviour disorder, prior physical illness, neuroticism, introversion, pre-trauma adverse life events, low education, pre-trauma psychoactive substance use, and early separation from parents. For example, Dent et al., (1989), investigating the prisoners of war held by the Japanese, found that particular variables were predictive of present-day depression: low education and socio-economic status, unemployment, retirement, being unmarried, and having anxiety or depression during World War II.

It is very important to note that the best predictors found in any study depend greatly on the nature of the sample, the severity of life threat experienced, and the stage of illness (acute vs. chronic) . There is likely an interaction between traumatic events themselves and pre-dispositional factors in chronic post-traumatic psychiatric illness. For example, Vietnam veterans were more likely than World War II veterans to have experienced more severe PTSD symptoms, depression, survivor guilt, occupational impairment, de-realization, suicidal ideation, panic disorder, and early age at onset of alcoholism. In one study, patients with the particular psychiatric predisposition or neurotic or introverted personality were more likely than patients without these personality characteristics to develop chronic PTSD (Davidson et al., 1987).

Researchers in the National Vietnam Veterans Re-adjustment Study also assessed a number of potential predisposing factors for psychiatric illness. These factors included demographic characteristics, socioeconomic status, family relationships, psychiatric history, childhood behavioural problems, childhood health problems, marital status, education, non-Vietnam War military history, and health and psychiatric status at the beginning of Vietnam War service. Consideration of these factors in data analyses changed prevalence risk for a number of groups studied. However, even after controlling for predisposing factors, PTSD prevalence among theatre veterans who had been exposed to high levels of war-zone stress was much higher than that among those exposed to low or moderate levels (Kulka et al., 1990).

## 6.6 Coping Strategies with Traumatic Experiences

It has been postulated that people with traumatic experiences use various styles of coping. Researchers found processing the recollection of the event, avoidance, and social support as main ways of copy with traumatic experiences (e.g., Dirkzwager et al., 2003; Hunt & Robbins, 2001a; Keane et al., 1985; Solomon et al., 1986, 1988; Williams et al., 2004).

### 6.6.1 *Avoidance*

Avoidance is considered as a coping strategy in response to the discomfort caused by the intrusion stage (Creamer et al., 1992; Hunt & Robbins, 2001b). According to Creamer et al., (1992) the presence of intrusive thoughts indicates that the memory network has been activated. Network activation produces a state of high physiological arousal, accompanied by a variety of aversive affective and cognitive responses. Persons may then attempt to escape these aversive responses by blocking out the traumatic memories. Attempts may be made also to avoid reminders of the trauma.

Creamer et al., (1992) state that although escape and avoidance may reduce immediate distress, excessive reliance on this strategy may be maladaptive for recovery to occur. The network must be activated for periods long enough to allow for effective processing and this tends not be happen when escape and avoidance will be associated with the continued presence of psychological symptoms. Hunts and Robbins (1998) also suggest that avoidance can be a very successful long term coping method for some

people. Although the prime determinant of avoidance levels in the current model will be the degree of intrusion, it is also likely to be influenced strongly by pre-existing styles of coping. Those persons who habitually use denial and avoidance as strategies to cope with stressful situations will presumably continue to do so after a traumatic incident.

### *6.6.2 Social Support*

Social support is another important strategy which helps people to cope with traumatic experiences. It was considered to be an important factor influencing reaction to stress. Having effective social support has been shown to be one of the most significant correlates of well-being and has long been believed to positively impact on health and guard against distress (see Dirkzwager et al., 2003; Sarason & Sarason, 1985).

In general, two models of social support have been suggested about the nature of the relation between social supports and health provided a central focus: The buffering model indicates that social supports positively influenced health and well-being by protecting people from the pathogenic effects of stressors. Alternatively, the main effect model argues that social supports positively influenced health irrespective of whether persons faced stressful (Cohen & Wills, 1985). Although there is no consensus about the relationship between social support and PTSD, having sufficient and satisfactory social support is generally associated with less psychological distress, such as PTSD (see Cohen & Wills, 1985; Hunts & Robbins, 2001a; Solomon et al., 1986).

In general, research has demonstrated an important relationship between social support and trauma outcomes across a variety of traumatised populations (e.g. Alphass et al., 2004). For example, Boscarino (1995) found that veterans who received a low degree of social support were more likely to be diagnosed with current PTSD than those received high or moderate levels of social support. Alphass et al., (2004) also in their study on older veterans, who served in the New Zealand Armed Forces, reported that older veterans with restricted social networks had poorer cognitive functioning.

In Solomon and colleague's (1986) study, a lack of social support from officers was found to be related to a greater feeling of loneliness and combat stress reaction

among veterans. Ahern et al., (2004) also conducted research on 306 Kosovars two years after war and found that persons with social support had lower posttraumatic stress scores in the MOS (Medical Outcomes Study) Social Support Survey. In their study, social support had a greater protective for women. The researchers did not control the effects of other variables on the mental health of veterans.

Hunt and Robbins (2001a) in a qualitative research also found that during the war and after that social support and comradeship were particularly important and even fifty years after the war comrades were still a valuable resource for discussing war experiences, and dealing with the emotional content of traumatic recollections. They concluded that veterans relied on wives and families to help deal with the more physical and practical elements of coping, but tend not to discuss their traumatic memories with them. Their findings showed that social support was an important lifelong coping strategy for World War II veterans.

Keane et al., (1985) also in a study on a group of Vietnam veterans reported that veterans traumatized by their combat experiences described significant reduction over time in their social network size and in the various qualitative dimensions of social support. According to their results, these decrements were more evident for those dimensions of support related emotional support. Similarly, King et al., (1998) found a strong mediation effects for functional social support on the relationship between war zone stressors and PTSD in a large sample of Vietnam veterans.

## *6.7* Reviewing Research Involving Iranian War Veterans

The Research findings on Iranian veterans reviewed in this chapter were translated from Farsi (Persian) to English by the researcher. Most of the studies' findings on war veterans have been presented in conferences held in Iran. These research results have been collated in a number of volumes published by War Veterans Foundation.

Many investigations have been conducted on Iranian war veterans with physical and mental health problems (e.g., Farshidfard, 1993; Okhovat & Jalili, 1982; Muhammadi & Norbala, 1985; Rezai, 1994; Vaezi et al., 1983). Most of these studies

were carried out after the Iran-Iraq war came to end. These studies have investigated the epidemiological characteristics (Davodian, 1993., Hamdieh, 1992), the prevalence of psychiatric disorders among veterans (Salehi, 1984), the effects of chemical agents on the health of veterans (Ainollahi et al., 1996., Muhammadi & Nori, 1993), the physical and psychological consequences of spinal cord injuries (Simforoush , 1996); the adjustment of veterans with physical and psychological problems (Vaezi et al., 1983); the effect of veterans' health problems on their family members (Kalantary, 1992., Farshidfard, 1993), the use of various coping strategies in coping with health problems (Ebrahimi et al., 2000), psychotherapy with veterans with physical and mental problems (Haghshenas, 1990). Most of these studies have focused on the prevalence of mental health problems, particularly on veterans who had referred to the Psychiatric Clinics for treatment. In this section, some of these studies will be reviewed.

Zarghami et al., (2001) examinined 200 veterans with disability who were referred to a psychiatric clinic. They found that 85% of them were above the cut-off points of the Symptom Checklist-90 Revised (SCL-90-R). The researchers concluded that veterans experienced some kind of psychiatric disorders. According to their study, most veterans suffered from somatisation, paranoid ideation and interpersonal sensitivity, respectively. They also found a significant association between psychiatric disorders, age and unemployment. Furthermore, they reported that 70% of veterans with psychiatric problems had not sought treatment. The researchers did not report any details regarding to the combat experience, the history of psychiatric disorders of veterans, the degree of disability or some important demographics characteristics which can have impact of on veterans in their research. Zarghami (1992) in another study compared the symptoms of PTSD on POWs and non-POWs. The POWs were also found to experience more PTSD symptoms. He also reported irritability, difficulty in concentration, and recollection as the most common symptoms of PTSD that veterans experienced.

In a research, Dashti and Javid (1992) examined the prevalence of different psychiatric disorders and also demographics characteristics among 500 veterans with psychiatric disorders. Researchers reported PTSD (26%), anxiety (19%) somatoform (10%) and depression (8%) as the most common mental health problems among veterans. Researchers concluded that deployed soldiers had significantly higher

psychological problems compared with volunteer ones. Similarly, Farhadi (1993) examining the clinical files of veterans who were referred to a psychiatric ward, reported PTSD diagnosis for 30% of patients. Abdullahian (1992) also investigated the situation of 360 psychiatric patients during 10 years from 1980 to 1990, using their clinical files in hospital. The highest rate of mental health problems among patients was PTSD (28%), adjustment disorder (14%), and brief reactive psychosis disorder (13%).

In another study, Salehi (1984) investigated the prevalence of depression among 600 combat veterans with disability; 19% of veterans were found to be above the cutoff points of the scale (Beck Depression Scale) and considered to have depressive episodes. The researcher also found a significant association between the severity of depression and the injured body part. Indeed, the people with head and face injuries were more likely to have depression than were veterans who had injuries in other parts of body. In his research, the effects of demographic characteristics on the degree and severity of depression were not controlled.

Mohajer & Norbala (1990) examining demographic characteristics and psychological health status of 1540 POWs, found a significant association between the length of captivity and higher scores on anxiety and depression on SCL-90. They reported demographic of veterans as 85% single, 68% under age 25, 20% with primary school and 74% high school education. On the effects of combat experiences on veterans' well-being, Mohajer and Norbala (1990) studied the association between the combat experiences and psychological outcomes among POWs. They found combat experiences as predictor of psychological distress.

In another study, Muhammadi and Norbala (1992) investigated the association between wellbeing and other important variables of 91 POWs (single = 77%, primary school = 35%, high school = 51%, voluntarily = 40%, deployed = 60%) who had referred to the Psychiatric Centre. The most common mental health disorders among the outpatient POWs were adjustment disorder and depression. Among inpatients POWs, Schizophrenia and major depression were found as the most common disorders. They also found an association between the attitude of family (agreement or disagreement on deployment), combat experience such as seeing killed comrades, the length of captivity, torturing and the severity of illness. They did not find any significance differences on

veterans' symptoms in terms of being volunteer or non-volunteer. Zarghami (1992), comparing POW and non-POW veterans, reported a higher prevalence of PTSD among POWs. He stated that majority of POWs had experienced severe traumatic stress such as injury, seeing their friend when were captured. They were also tortured and treated so badly while in captivity.

In a further study, Haghdadi et al., (1990) compared the psychological problems of veterans with disability exposed to chemical agents with those who did not expose to with chemical agents and found similar symptoms in both groups. The participants of both groups reported depressive mood, insomnia, headache, irritability, and anxiety. Similarly, Maleki et al., (1996) in a study examined the relationship between demographic characteristics and psychiatric disorders among 450 veterans with physical health problems and chemical injured veterans with psychological problems who had been referred to the Mental Health Centre. In his study, both veterans with disability and those who had been exposed with chemical agents showed higher scores on dimensions of depression, aggression, anxiety and interpersonal sensitivity on the SCL-90. Researcher did not find any significant association between the degree of disability and the mental health problems, but an association was found between the unemployment and psychological well-being of veterans. The researchers concluded that the unemployed veterans had more severe mental health problems compared to employed veterans.

Godarzi (1992), comparing 700 veterans with disability, non-veterans with disability and veterans group with no disability, reported that non-veteran group with disability experienced traumatic stress more frequently than war veterans with disability and veterans with no disability. Researcher developed a specific scale to measure the traumatic experiences of participants. He concluded that the severity and degree of physical disability was a fundamental source of stress for both disabled groups.

*Studies of Copings in Iranian Veterans*

Ebrahimi et al., (2000) examined the relationship between different styles of coping and social support with depression among veterans with spinal injury, using Carver's COPE scale and Beck Depression Scale. They found a moderate relationship

between lower levels of depression and greater use of problem-focus coping strategies including religious coping, active coping strategies, planning, seeking social support, and positive interpretation. On the other hand, they reported a moderate association between emotional focused coping, negative thought, disengagement, denial, drug consuming, fantasy, and emotional social support with higher level of depression. In their research, participants with sufficient social support showed a lower level of depression. They also found that veterans who took part in war voluntarily and those who were employed reported less depression.

Similarly, Kianpour et al., (1992) compared different coping strategies used by two groups of veterans with physical and mental health problems. They found a significant difference among veterans in term of the use of coping strategies. Their findings showed that veterans with physical problems used more frequent problem-focus coping compared to veterans with mental health problems that had used unconstructive coping methods.

With regard to the relation of degree of disability with psychological well-being, Asadollahi et al., (1993) examined depression among veterans with spinal cord injury (paralysis) and veterans with non-spinal cord injury. They did not find any significant difference on depression of these two groups in terms of degree of disability. Borj-Ali (1992) investigated the relationship between the attitudes of veterans toward war and depression. He found a significant association between negative attitude of war and higher scores on depression scale among veterans.

Muhammadi and Nori (1993) examined psychological disorders on 70 veterans exposed with different types of chemical weapons. They found 30% above the cutoff points on some scales of MMPI such as anxiety, depression and PTSD. In a recent study, Hashemian et al., (2006) examined the long-term psychological impact of chemical warfare on Iranian civilians (n = 153) in three towns of Iran close to the borders of Iran and Iraq. The war-related mental health problems were examined in the civilians of three towns, one exposing to conventional low-intensity warfare, another exposing to high-intensity warfare and the third exposing to both high-intensity warfare and chemical warfare. They found that those were exposed to both high-intensity warfare and chemical weapons had significantly higher mental health problems than did

residents of the other two towns. Fifty-nine percent of civilians exposing to high intensity and chemical agents were found to have PTSD in their lifetime. Thirty-three percent were currently suffering from PTSD, 65% reported anxiety symptoms and 41% had severe depressive symptoms. The results highlighted the importance of examining long-term mental health problems in communities affected by war, particularly in those exposed to chemical weapons.

## 6.8 Implications for the Present Study

The clinical profile of Iranian veterans with disability appears to be similar to the findings of research on veterans of other wars in terms of psychological problems. In the above studies the veterans with disability had experienced more health problems. Most studies on Iranian veterans reviewed in this chapter found PTSD, depression, and anxiety as the most common psychiatric disorders.

The research on Iranian veterans reviewed in this chapter has several limitations. These potential problems are mainly related to the methodological issues. The researchers surveying Iranian veterans did not report any details on the psychometric properties of scales which they used to measure mental health problems. Furthermore, as noted already a large number of veterans had a low level of education that may influence the results of their studies.

The other problem is related to sample size. The sample size of some studies, which have examined the prevalence of mental health problems among veterans, has been small. Studying the prevalence of mental health problems requires a large sample; therefore, the conclusions on the prevalence of mental health problems drawn based on these surveys cannot be generalized to a general population of veterans. Furthermore, some studies on the prevalence of psychiatric disorders on veterans carried out on veterans who were referred to therapeutic centre for treatment and the conclusions about the mental health of general population of veterans cannot be drawn based on those who were referred for psychological treatment.

With regard to the relatively high prevalence of psychiatric problems reported in some studies, it seems that the socio-demographic status of veterans may impact on the

prevalence of health problems among them. As mentioned earlier, in most studies carried out on disabled veterans, the majority of individuals with PTSD and other mental health problems were young, single and had low education and income. Furthermore, most studies did not examine the mediator effects of some of the important personal and environmental factors including demographics indexes, personality factors such as hardiness, social support, religious and spiritual beliefs, the perceptions of veterans and combat experiences on the relationship between traumatic experiences and psychological well-being.

The researchers studying Iranian veterans have not addressed the role of religious and spiritual beliefs on the health of veterans and also the use of religion in coping with traumatic experience and health problems in their research. They have not also investigated coping strategies and resources veterans used to cope with their situation.

Ai et al., (2005), in a study on Muslim war refugees from Kosovo and Bosnian, examined the use of religious coping for coping with traumatic experiences. Researchers used Pargament's Brief Religious Coping Scale, a 14-item scale with positive and negative items of religious coping, and three statements which required participants required to rate their use of prayer for coping on a 4-point scale and also their attitudes to religion. Their findings showed that over three-quarters of the respondents had faith in the efficacy of using prayer for coping prior to the war, and nearly 70% had used prayer to cope with difficulties/distress related to the war. Their study showed that religiousness had a direct influence only on positive patterns of religious coping among refugees, with no direct and indirect role in negative coping. They also found that refugees who experienced more PTSD symptoms were more likely to use this type of prayer.

As noted earlier (Chapter 2), in a number of empirical studies, researchers have shown significant relationships between measures of health and global religious indices, such as prayer, Church/Mosque attendance and self-rated religiousness and spirituality (see Koenig et al., 2001; Pargament, 1997 for review). These studies have led researchers to consider a variety of explanatory factors that may account for the connection between religion and health. These include health variables (e.g. health

practices), psychological variables (e.g. meaning, coherence, self-esteem) and social variables (e.g. social support, intimacy).

As yet, however, efforts to demonstrate that these physical, psychological and social factors mediate the relationship between religion and health have yielded mixed results (e.g., George et al., 2002; McCullough et al., 2000). According to Pargament (2004), an explanation for the associations between religion and health is that religion has direct effects on health. He argues that if the religion–health connection is not fully mediated by physical, psychological or social factors, perhaps there is something within religion itself that accounts for its effects. Pargament (1998) has suggested that an individual's global religiousness may translate into specific religious beliefs and practices that are, in turn, directly related to health and well-being. He considers specific religious mechanisms as religious coping methods.

Similarly, Tix and Frazier (1998) conducted a longitudinal study of patients and their close relatives coping with the stresses of kidney transplantation. Religious coping was predictive of greater life satisfaction at three and twelve months post transplantation, even after controlling for cognitive restructuring and internal control (for patients), and cognitive restructuring and social support (for significant others). They concluded that religious coping added a unique component to the prediction of adjustment to stressful events that cannot be accounted for by other established predictors.

In this study, it seems that religion belief and practice may have a strong impact on the daily life of Muslim people. Several researchers have shown that religious beliefs had a significant effect on the Muslim participants. For example, Muslim youth in Jacobson's (1998) study viewed their religion as a source of meaning in that it provided clear and certain guidance on behaviour. Two third of respondents in her survey aged 16-30 stated that religion was very important to the way they live their lives. Jacobson concluded that Islam was a significant source of identity among British Muslims.

Most studies carried out on Iranian war veterans have focused on the prevalence of psychiatric disorders and epidemiological features of the veterans with physical and psychological problems (see Mohajer & Norbala, 1990; Maleki et al., 1996; Ebrahimi et

al., 2000). With regard to the significant role of religion and spirituality on the life of many Iranians, it is important to explore the effect of spirituality on health of a group of veterans with health problems. To date, no research has investigated the role of religious coping and personal meaning on the psychological well-being of war veterans in a Muslim context.

The situation of war veterans, including their experience in war as well as their disability, represents the type of stressful situation that might elicit religious coping. Therefore, it was hypothesised that in a very religious society like Iran religious beliefs and practices may have a unique contribution to mental health. It is expected that religious and spiritual coping will have a significant contribution to the psychological well-being of Iranian disabled war veterans.

## 6.9 Conclusions

The current chapter described issues relevant to the Iran-Iraq war, the concept of PTSD, demographic studies on war veterans and risk factors for PTSD. This chapter also reviewed coping strategies used by combat veterans, followed by studies on Iranian veterans. Finally limitations of the previous research on Iranian veterans and implications for the present study were discussed.

# Chapter Seven: The Study of Iranian War Veterans: Data Collection, Analysis and Results

## 7.1 Chapter Overview

The main purpose of the present study was to investigate the contribution of religious coping alongside social support and personal meaning on mental health of Iranian war veterans with physical disability and traumatic experiences. Results from this study will be reported in three main sections. In the first section, the prevalence of mental health problems such as PTSD, anxiety and depression and also the use of religious coping by veterans will be examined. The second section, presents the relationship between the different patterns of religious coping strategies and mental health. The final section examines the role of religious coping, social support, physical function, and personal meaning on the mental health of disabled veterans.

## 7.2 Research Hypotheses

The hypotheses of the present study can be categorised into five main sets having to do with (1) the prevalence of mental health problems among Iranian war veterans, (2) the use of positive and negative religious coping for coping, (3) the relationship of religious coping, physical function, social support and personal meaning with physical and mental health, (4) the relationship of adaptive and maladaptive coping strategies and mental health, and (5) the contribution of religious coping, social support, and personal meaning to mental health.

1. It was hypothesized that a low proportion of disabled veterans would have mental health problems. It was also hypothesized that veterans exposed to chemical weapons would experience more mental health problems than veterans with other physical problems. Furthermore, it was expected that deployed veterans would have more mental health problems than volunteers.

2. It was hypothesized that participants would use positive religious coping more frequently than negative religious coping.

3. It was hypothesized that participants who used greater positive religious coping would experience lower levels of mental health problems, and that participants who used the negative methods of religious coping would experience higher levels of mental health problems.

4. It was hypothesized that participants who used adaptive and constructive coping strategies would have a better mental health status, and that those who used unconstructive coping would have more mental health problems.

5. Finally, and theoretically more important, it was hypothesized that religious coping would contribute more significantly to the prediction of the disabled war veterans' mental health than personal meaning. Previous studies on Muslim samples have indicated that religion and spirituality central to their lives. For example, they used religious beliefs and practice to cope with depression and difficulties consequent on ageing. In contrast to some U.S. theories in this field (George et al. 2000), it was hypothesized that personal meaning would not explain the beneficial effects of religiosity.

## 7.3 Method

### *7.3.1 Ethical Issues*

Recruiting veterans to take part in a study needed official permission from the War Veteran Foundation. The researcher was asked to submit a request application, a brief proposal of the study and a copy of the questionnaires to the Research Committee of the Disabled War Veterans Foundation to be considered. They considered the application and agreed that the study be carried out. They also agreed to cooperate in recruiting the participants. Participants were asked to read and sign the Consent Form. They were also informed that they could withdraw at any time, and this was made clear to veterans both verbally and in the consent form. Privacy, confidentiality and anonymity were maintained throughout this research. Each participant was given an identification number which was used in all later analysis and reporting of the data without exception. In addition, each participant was debriefed by the interviewer and also by a formal letter. Furthermore, all participants were invited to indicate if they wished to receive information on the findings of the study. All participants were given

the contact details of the interviewer and researcher and were encouraged to get in touch if they wished to discuss in more detail any of the issues raised through this research.

### *7.3.2 Participants and Procedures*

Participants were 78 Iranian disabled war Veterans who took part in the Iran-Iraq war. The participants were recruited through the Foundation of Martyrdom and Sacrifice (Bonyade Janbazan) and also by research assistants who knew the veterans personally. The veterans were recruited from the cities of Shiraz, Mashad, and Kerman. Research assistants contacted the participants and made an appointment at their convenience at the participants' home. Then written informed consent was obtained that included statements about the voluntary nature of participation and the methods used to ensure participants' anonymity. The consent form indicated that they could withdraw from the study at any time. Three qualified Clinical Psychologists interviewed participants. The participants completed most questionnaires. Only the SF-36 was read by the research assistant to some of participants and they responded to it verbally. Four veterans chose not to take part in the study; two stated that the questionnaires were too long; another two stated they did not have enough time to complete all questionnaires.

The veterans had little difficulty completing the questionnaires, and there did not appear to be any ambiguous questions. The war veterans with disability were interviewed with the use of anonymous questionnaires.

The reason war veterans with physical disability were chosen as a target group in this study was that they were more likely to have experienced intensive emotions in the war and to suffer from continuing physical and psychological problems such as PTSD.

With regard to sample size, Field (2005) states that 10-15 cases of data for each predictor variable in the model are enough for multiple regression analysis. In this study there are four predictor variables, therefore, 40-60 participants would be needed. Tabachnick and Fidell (2007) has also suggested "$N > 50 + 8m$" ($m$ is the number of Independent Variables) for testing the multiple correlation. Therefore, using this method, 82 participants would be needed.

### *7.3.3 Measures*

Measures were selected based on conceptualization and previous research. The measures chosen were suitable to assess research variables in a health context, have good psychometric properties, and have been widely used to measure these variables. Furthermore, an attempt was made to choose measures which had already been validated on the Iranian sample in our previous studies or in other research and which had acceptable reliability and validity. In the measures section, the reasons for use of the various instruments will be explained.

Participants completed measures of the physical health subscale of SF-36 , mental health [mental health was defined as depression (HADS), anxiety (HADS), general mental health (GHQ), PTSD (IES-R), and the mental health subscale of the SF-3], religious coping, spiritual strength, personal meaning, and social support. The measures which were used in the current study are discussed in the following section.

#### *7.3.3.1 Biographical and Combat-Related Information*

This assessment provided basic information about the veterans, such as age, marital status, education level, the age of person when deployed, employment status, the type of deployment (voluntary or deployment), military service unit, the percentage of disability, the type of physical problem, and the duties they carried out while in military service. In addition, the duration of time in which veterans remained in a war-zone and also in the front line operations were asked about.

#### *7.3.3.2 The Short Form (SF-36) Health Survey Questionnaire (*Ware & Sherbourne, 1992)

The SF-36 was used to assess general health status. The scale was designed for use in clinical practice and research, health policy evaluations, and general population surveys. The SF-36 is a self administered questionnaire containing 36 items which measures health on eight multi-item dimensions. This scale ranged from 0 (poor health) to 100 (excellent health) with a higher score indicating better health and a lower score indicating poor health. These subscales are physical functioning (PF), role limitations as a result of physical problems (RP), role limitations resulting from emotional problems (RE), bodily pain (BP), general health perception (GH), vitality (the frequency of

feeling full of energy vs. feeling tired) (VT), social functioning (SF), and general mental health (MH) (Ware & Sherbourne, 1992). The SF-36 has been used widely to assess general health status and patients' perceived health in clinical and research contexts. The internal reliability of the scale has been reported ranging from .82 to .92 for different subscales.

#### *7.3.3.3 Religious Coping Scale*

A Religious Coping scale was used to measure religious coping (see Chapter 3 for an account of results on the psychometric properties of the Religious Coping scale in an Iranian sample). Participants were asked to rate all items on a five-point scale from not at all (0) to a great deal (4). The scale consists of 25 items and assesses the religious coping strategies which people use in difficult situations. The Religious Coping scale includes 6 subscales including Practice Religious Coping (6 items), Benevolent Religious Coping (6 items), Negative Religious Coping (4 items), Ignoring (3 items), Passive and Active Religious Coping Scale (3 items each scale). The results of the previous research, cited in Chapter Three, showed that the Religious Coping measure had a good validity and reliability for Muslim people. The internal reliability of the scale was acceptable for the different dimensions of the measure. The Cronbach's Alpha for the total scale was .93.

#### *7.3.3.4 Personal Meaning Index (PMI; Reker, 1999)*

The PMI scale was used to measure the sense of personal meaning. It was developed by Reker (1999) and has 16 items. It consists of the Purpose and Coherence dimensions which are two subscales of the Life Attitude Profile (Reker, 1999). Many studies have found the PMI to have a good validity to assess personal meaning constructs. (See Chapter 4 for results on the psychometric properties of this scale on an Iranian sample.)

#### *7.3.3.5 Spiritual Scale (King et al, 2001)*

The Spiritual scale, a 6-item scale, was used to measure spirituality. King et al. (2001) developed this scale, because they believed that the most serious drawback to published formats of previous scales was their Judaeo-Christian bias. The authors claimed that the scale items avoid any reference to the type or denomination of faith involved. This instrument, therefore, was intended to capture a broad definition of

spirituality. The participants answered by rating their agreement on a scale ranging from 0 to 10.

The previous study also showed that this scale had good reliability and validity in an Iranian population (see Chapter 3). A Cronbach's Alpha of 0.89 has been reported for the scale. High correlations have also been reported with other religious scales such as the Allport Intrinsic Religiosity Scale (King et al., 2001).

*7.3.3.6 Impact of Event-Revised Scale (IES-R, Weiss & Marma, 1997)*

The Impact of Event-Revised Scale was used to assess the traumatic experiences of participants. The IES is a self-report measure which was developed on the basis of Horowitz's theory. The IES was designed to parallel the DSM-IV criteria for PTSD. The scale has 22 items and consists of three subscales comprising Intrusion (items 1, 2, 3, 6, 9, 14, 16, and 20), Avoidance (items 5, 7, 8, 11, 12, 13, 17, and 22), and Hyper-arousal (items 4, 10, 15, 18, 19, and 21). The original scale did not include hyper-arousal. There are no cut-off points for the IES-R, but for original 15-item IES, a score of 30 has been considered (see Coleman & Hautamaki, 2001; Hunt & Robbins, 2001). For the purpose of this study, a score of 25 on the IES-R was considered.

This measure is one of the most widely used instruments by which to assess the three symptom domains of PTSD. In different population samples, IES-R has been reported to have a high reliability and validity (Weiss & Marmar, 1997). Horowitz et al. (1979) reported satisfactory internal reliability (Cronbach's alpha = 0.78 for intrusion and 0.82 for avoidance) and test-retest reliability (r = 0.89 for intrusion and 0.79 for avoidance). This scale was translated into Farsi and then back translated to English. The analyses of the scale in the present study indicates an acceptable internal consistency for different scales of Impact of Event (Avoidance = .66; Intrusion = .84; Hyper-arousal = .85) except for Avoidance.

*7.3.3.7 General Health Questionnaires (GHQ 12, Goldberg, 1988)*

The GHQ-12, a well-validated scale of psychiatric problems, was used to assess the health outcomes. The GHQ has been widely used in traumatic stress research as a measure of global dysfunction (see Coleman & Hautamaki, 2001; Hunt & Robbins, 2001). Many studies have used the 12-item GHQ, which, despite its brevity, has been

found to be a valid measure of psychiatric impairment (see Montazeri et al., 2003 for a review). Participants were asked to indicate how often in the past month they had experienced each symptom using a four-point response scale ranging from 1 (less so than usual) to 4 (much more than usual). Five items are worded positively and seven items are worded negatively to control for response bias. Higher scores in this scale suggest higher levels of distress. This scale has been used in Iran and found to have a good reliability and validity (Montazeri et al., 2003). GHQ-12 was also used to measure the psychological distress of earthquake in Iran (Montazeri et al. 2005). The previous study also showed that GHQ-12 has a good reliability (Cronbach's alpha = .86) for Iranians (see Chapter 3).

*7.3.3.8 Hospital Anxiety and Depression Scale (HADS, Zigmond & Snaith, 1983)*

The HADS was used to measure the extent of anxiety and depression within the research sample. The HADS is a 14-item scale that measures depression and anxiety in and outside hospital and community settings. Scores of 0–7 in respective scales are considered normal, with 8–10 borderline and 11 or over indicating clinical distress. It has been widely used to assess anxiety and depression. This scale has been validated in Iran and found to have a good reliability and validity for Iranians (Montazeri et al, 2003).

*7.3.3.9 Medical Outcomes Study (MOS) Social Support Survey* (Sherbourne & Stewart, 1991)

Social support was measured using the MOS, a 19-item measure of perceived social support. This scale assesses aspects of support particularly applicable to patient populations. It includes four aspects of social support: (a) tangible (e.g., "help you if you are confined to bed," "take you to the doctor if you need to go"), (b) emotion/information (e.g., "listen to you when you need to talk," "give you good advice about a crisis"), (c) affection (e.g., "show you love and affection," "hug you"), and (d) positive social interaction (e.g., "do something enjoyable with," "get together with for relaxation"). Scores range from 0 to 95 on four subscales. Researchers reported high internal consistency for different dimensions of the scale including tangible support (.91), emotion/information support (.96), affection support (.94), positive social interaction (.94), and total support (.93). The measure possesses good convergent and divergent validity, correlating strongly and positively with family and marital

functioning, mental health, and social activity and negatively with loneliness and role limitations. There is also good evidence of test–retest reliability and stability over time (Sherbourne & Stewart, 1991).

*7.3.3.10 Brief COPE Scale* (Carver et al., 1989)

The Brief COPE scale was used to measure various styles of coping. The Brief COPE scale is a 28-item self-report measure of both adaptive and maladaptive coping skills. The Brief COPE was developed based on concepts of coping from Lazarus and Folkman (1984). The scale was designed to yield fourteen subscales, comprised of two items each. This scale has been used in Iran in several studies. The Iranian researchers have also used this scale to measure different strategies of coping on a sample of disabled war veterans. Their research showed that the Brief COPE is a reliable and valid measure for Iranian war veterans (e.g. Ebrahimi et al., 2000).

### *7.3.4 Pilot Study on Veterans*

The research questionnaires were completed by eight veterans. The purpose of this was to pilot the questionnaires to ensure comprehensibility of the scales for veterans. The veterans had no difficulty completing the questionnaires, and there did not appear to be ambiguous questions. Data collected as part of the piloting of the internal schedule were included in the analysis.

### *7.3.5 Data Analysis*

Pearson's correlation was used to test the relationship between two sets of variables. A paired-samples t test analysis was conducted to examine whether there was a significant difference between religious coping and non-religious coping methods. To examine the relationship between multiple variables, a multiple regression analysis was carried out.

In the present study, there were five dependent variables for the hierarchical regression analyses; namely, anxiety, depression, PTSD, mental health (SF-36), and general mental health (GHQ). The independent variables were physical function, social support, personal meaning and religious coping. Specifically, the first set of independent variables to be entered was physical function, as this can contribute some

of the variance in mental health. The second and third sets of independent variables to be entered were social support and personal meaning, respectively. Once these variables were entered and controlled, the final set of independent variables to be entered was religious coping. These predictor variables were entered in analysis with entry to the model set at $p < .05$ and removal set at $p < .05$.

## 7.4 Results

Results from the present research will be presented in three main sections. In the first section, the descriptive findings on the socio-demographic characteristics of sample, the mental heath measures, and the predictor variables will be presented. The second section will focus on the relationships between research variables including religious coping and mental health, predictor variables and mental health, and combat experience and mental health. The final section will address the contribution of predictor variables including physical function, social support, personal meaning, and religious coping on mental health indicators including depression, anxiety, PTSD, mental health, and general health.

### 7.4.1 Findings on Research Variables

#### *7.4.1.1 Descriptive Data on the Sample*

All 78 participants in the present research were male, aged between 35 and 62 with a mean age of 43.62 (SD = 5.28) and all except one were married. With regard to the unit in which veterans did their service at war, 54% were the members of paramilitary forces (Basij) who took part at war voluntarily, 31% were members of the Revolutionary Guard (Pasdaran), [they also took part voluntarily in the war], and 15% were regular army (Artesh) which deployed to the war zone. The majority of regular army was deployed to war zone as compulsory duty. With regard to type of injury, fifteen participants (19.2%) had been exposed to the chemical agents and sixty three veterans (80.7%) had various injuries such as spinal cord injury, limb and hand losts and also other injuries in their body. The demographic characteristics are presented in Table 17.

Table 17: Demographic Characteristics for Sample (n = 78)

| Variable | N | % |
|---|---|---|
| **Age** | | |
| Mean | 43.6 | |
| SD | 5.2 | |
| Mean Age of Deployment | 19.7 | |
| **Duration of Service in war (months)** | | |
| Mean | 22.8 | |
| SD | 18.9 | |
| **Marital Status** | | |
| Married | 77 | 98.7% |
| Single | 1 | 1.3% |
| **Education Level** | | |
| Postgraduate | 8 | 10.2% |
| Undergraduate | 26 | 33.3% |
| High School | 39 | 50% |
| Under High School | 5 | 6.4% |
| **Military Service Unit** | | |
| Regular Military (Artesh) | 12 | 15.3% |
| Islamic Revolutionary Guards | 24 | 30.7% |
| Paramilitary (Basij) | 42 | 53.8% |
| **Deployment Type** | | |
| Volunteer | 63 | 80.76% |
| Employed | 15 | 19.23% |
| **Physical Disability Type** | | |
| Chemical Injured veterans | 15 | 19.23% |
| Other physical Disabled Veterans | 63 | 80.76% |

### *7.4.1.2 Findings on the Prevalence of Mental Health Problems*

To examine the prevalence of mental health problems among the participants, data on several mental health measures including IES-R, subscales of Anxiety and Depression of HADS, GHQ, and the Mental Health scale of SF-36 were analysed. Findings relating to each mental health measure are presented separately.

*Prevalence of PTSD:* Table 18 shows the means and standard deviations of participants in different subscales of the IES-R (i.e., Avoidance, Intrusion, and Hyperarousal) and also total scores of the scale. Table 18 also shows the percentages of veterans scoring above the recommended cut-off point. As noted in this table, Only 33 respondents (23%) scored above 25 on IES-R. Ten (12.8%) participants met the criteria for avoidance; 12 (15.3%) veterans met the criteria for intrusion; and 5 (6.4%) participants met the criteria for hyper-arousal. Participants scored highest on intrusion followed by avoidance and hyper-arousal.

*Prevalence of Anxiety and Depression:* The prevalence of anxiety and depression are presented in Table 18. The mean score of the sample on anxiety was 6.24, which is within the normal range. The majority, 50 (64%) veterans fell within the "normal range", 18 (23%) veterans fell within the "borderline clinical" range, and 10 (12%) veterans were identified as "clinical" cases. Regarding depression, as can be seen in table 2 the mean score of participants was 6.34, also within the normal range. Forty nine (62%) of the sample fell within the "normal depression" range, 19 (24%) fell in the "borderline clinical" level, and 10 (14%) fell in the "clinical depression" range.

*Mental Health (SF-36):* Table 18 shows the mental health level of participants as measured by the mental health subscale of the SF-36. Veterans had a mean score of 60.6 on this scale. Fifty eight (74.3%) of participants scored above 50 and only 30 (25.7%) scored below 50.

*General Mental Health:* The mean score of the veterans on the GHQ was 11.42 (SD = 5.18). The findings showed that 18 veterans (25%) experienced severe psychological distress, as measured by the GHQ-12. The results are shown in Table 18. Results on all

mental health measures indicated that most veterans had a good status in terms of mental health.

Table 18: Means, Standard Deviations & Percentages for Clinical Cut-off points of Participants on Different Scales of IES-R, HADS, SF-36, and GHQ

| Measure | Mean | SD | Normal | Borderline | Clinical |
|---|---|---|---|---|---|
| Avoidance | 6.98 | 4.82 | | | 12.8% |
| Intrusion | 12.03 | 6.06 | | | 15.3% |
| Hyper-arousal | 5.67 | 4.35 | | | 6.4% |
| IES-R (Total) | 24.73 | 12.09 | | | 23% |
| Anxiety (HADS) | 6.24 | 3.96 | 64% | 23% | 12% |
| Depression (HADS) | 6.34 | 3.68 | 62% | 24% | 14% |
| Mental Health (SF-36) | 60.61 | 18.50 | | | 25.7% |
| GHQ | 11.42 | 5.18 | | | 25% |

*7.4.1.3 Comparisons between Groups of Veterans*

*Comparing Mental Health on Chemically and Non-Chemically Injured Veterans:* Results of this study using the independent samples t-test, showed that there was no significant difference between veterans who had been exposed to chemicals (n = 15) and those who had not been exposed chemically in terms of mental health problems. The results are shown in Table 19.

*Comparison between Volunteers and Deployed Veterans on Mental Health Measures:* Independent samples t-test showed a significant difference on depression and PTSD between volunteer veterans and deployed veterans. As can be seen in Table 19,

Table 19: Comparing Means and Standard Deviations of Mental Health Measures between Chemical-Injured Veterans and Non-Chemical Injured Veterans and also between Deployed and Non-Deployed Veterans

| Measure | Chemical Injured (n = 15) | | non-chemical Injured (n = 63) | | t | Deployed (n = 15) | | Volunteers (n = 63) | | t |
|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | | Mean | SD | Mean | SD | |
| HADS (Anxiety) | 6.80 | 3.93 | 6.11 | 3.99 | -.60 | 7.78 | 4.04 | 5.90 | 3.89 | -1.62 |
| HADS (Depression) | 6.93 | 3.80 | 6.20 | 3.67 | -.68 | 8.35 | 3.52 | 5.85 | 3.60 | -2.31* |
| GHQ | 12.93 | 6.30 | 11.11 | 4.84 | -1.23 | 13.50 | 6.72 | 11.01 | 4.70 | -1.64 |
| SF-36-MH | 57.06 | 17.00 | 61.33 | 8.95 | .80 | 55.14 | 17.34 | 61.93 | 18.92 | 1.23 |
| IES-R | 26.33 | 11.33 | 24.33 | 12.10 | -.48 | 32.28 | 12.19 | 23.50 | 11.56 | -2.55* |

*p < .05, **p < .01

deployed veterans scored higher on all mental health measures compared with volunteer individuals, but the difference between two groups was statistically significant only on depression and PTSD.

#### *7.4.1.4 Descriptive Findings on Predictor Variables*

Findings relating to the different subscales of SF-36, religious coping, social support, and personal meaning are presented in Table 20. The values of the SF-36 except Health Perception and Change in Health in the present study were moderate. Participants scored above 50 on most dimensions of the SF-36. The results showed that veterans experienced some degree of physical disability, limitation in work due to physical and psychological problems, vitality and energy, pain, general health perception and change in health. Thirty two (41%) participants scored below 50 on the physical function dimension.

Results on different scales of religious coping are presented in Table 20. Participants scored relatively high on positive religious coping (practice, benevolent reappraisal and active) and low on negative religious coping (negative, ignoring and passive). The highest score was for practice and the lowest was on negative religious coping style. The means and standard deviations of different scales of social support are also shown in Table 20. Participants had a relatively high score on the scales of social support. It appears that Iranian war veterans had received sufficient social support. Results on PMI also indicated that veterans had a high sense of personal meaning.

Table 20: Means and Standard Deviations on Different Scales of SF-36, Religious Coping, Social Support, Personal Meaning, and Spiritual scale

| Measure | Mean | SD |
|---|---|---|
| **SF-36** | | |
| Physical Function | 51.77 | 28.62 |
| Role Limitation due to Physical Problems | 63.15 | 37.52 |
| Role Limitation due to Emotional Problems | 64.66 | 39.09 |
| Social Functioning | 66.78 | 20.80 |
| Energy/Vitality | 51.08 | 17.79 |
| Pain | 58.29 | 21.29 |
| General Health Perception | 43.53 | 21.03 |
| Change in Health | 41.98 | 22.61 |
| **Religious Coping** | | |
| Practice | 3.16 | .79 |
| Reappraisal | 2.83 | .82 |
| Negative | .36 | .54 |
| Ignoring | .41 | .64 |
| Active | 3.08 | .80 |
| Passive | .70 | .58 |
| **Social Support** | | |
| Emotional Support | 3.13 | .87 |
| Tangible Support | 3.29 | 1.26 |
| Affective Support | 3.77 | 1.02 |
| Positive Support | 3.61 | 1.05 |
| Total | 3.38 | .84 |

Table 22: (continued)

| Measure | Mean | SD |
|---|---|---|
| **Personal Meaning** | | |
| Purpose | 40.48 | 9.12 |
| Coherence | 42.67 | 9.13 |
| PMI | 83.18 | 19.92 |

*7.4.1.5 Religious vs. Non-Religious Coping*

To investigate what coping strategies (religious or non-religious) participants used more frequently, the data on different scales of the COPE were analysed. On average, veterans reported using various styles of coping strategies to manage their disability. The most frequently reported coping methods were "religious coping," followed by planning, acceptance, active coping, positive reframing, instrumental support, emotional support, self distraction, venting, and humour. The least frequently used coping strategies were behavioural disengagement followed by denial and self-blame, the most maladaptive and unconstructive forms of copings. The results are shown in Table 21.

A paired-samples t test analysis was conducted to examine whether there was a significant difference between religious coping strategy and non-religious coping methods. The results revealed a significant difference between the subscale of Religious Coping of the COPE and all non-religious coping measures except active coping, planning and acceptance. The results are shown in Table 21.

Table 21: Comparison between Religious Coping Strategies with Non-Religious Coping Strategies on the COPE Scale

| Subscale | Mean | SD | t |
|---|---|---|---|
| Religious Coping | 6.62 | 1.27 | _ |
| Self-distraction | 4.19 | 1.50 | -11.91*** |
| Active Coping | 6.07 | 1.60 | -2.62 |
| Denial | 3.39 | 1.56 | -14.65*** |
| Emotional Support | 4.46 | 1.55 | -10.60*** |
| Instrumental Support | 5.23 | 1.66 | -6.70*** |
| Behavioural Disengagement | 2.76 | 1.09 | -19.16*** |
| Venting | 4.12 | 1.38 | -11.58*** |
| Positive Reframing | 5.80 | 1.45 | -4.74*** |
| Planning | 6.30 | 1.28 | -1.99 |
| Humour | 3.51 | 1.71 | -13.58*** |
| Acceptance | 6.14 | 1.49 | -2.45 |
| Self-blame | 3.19 | 1.48 | 14.85*** |

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

### 7.4.2 Relationships between Variables

In this section, the different results on the association between research variables will be presented. They include the relationship between various methods of religious coping and physical/mental health measures. Furthermore, the association between predictor variables and mental health indicators will be presented followed by relationship between the subscales of IES-R and mental health measures.

#### *7.4.2.1 Relationships between Religious Coping Patterns and Physical/Mental Health Measures*

To examine the relationship between different scales of religious coping measure and the measures of physical and mental health, Spearman's correlations were carried out. As can be seen in Table 22, there was a non-significant correlation between the Physical Function scale of the SF-36 and the positive religious coping strategies including practice and benevolent reappraisal. Physical function was uncorrelated to negative religious coping, while coping by ignoring had a negative non-significant correlation with physical function.

Table 22: Correlations between the Scales of Religious Coping and Physical/Mental Health Measures

| Subscale | SF-36 (PF) | GHQ | HADS (Anxiety) | HADS (Depression) | SF-36(MH) | IES-R |
|---|---|---|---|---|---|---|
| Practice | -.15 | -.41** | -.36** | -.41** | .43** | -.28* |
| Benevolent | -.12 | -.43** | -.38** | -.44** | .39** | -.33** |
| Negative | .07 | .36** | .27* | .15 | -.24* | .25* |
| Ignoring | -.18 | .38** | .30** | .26* | -.39** | .15 |
| Active | .01 | -.12 | -.05 | -.14 | -.01 | .08 |
| Passive | -.05 | .04 | -.00 | .07 | -.10 | -.02 |

*p < .05, **p < .01

With regard to the association between various styles of religious coping and mental health measures, findings indicated a significant negative association between the scales of positive religious coping (Practice, Benevolent Reappraisal) and mental health measures including the GHQ, HADS (anxiety), and HADS (depression). As can be seen in Table 22, the GHQ correlated with Practice and Benevolent moderately. Anxiety was also associated with Practice and Benevolent moderately. Depression was related with Practice and Benevolent religious coping strategies. Moreover, PTSD correlated with Practice and Benevolent. Indeed, the greater use of religious coping was moderately related to lower levels of anxiety, depression, psychosomatic symptomatology and PTSD.

The finding did not show a significant association between active religious coping and mental health indicators. The results of the current research also showed a significant positive correlation between the scales of negative and ignoring religious coping strategies with the mental health measures. In other words, the greater use of negative religious coping was moderately related to higher levels of anxiety, depression and PTSD. The results of this study did not show an association between passive religious coping strategies and measures of mental health.

#### *7.4.2.2 Relationship between Predictor Variables and Mental Health Outcomes*

The correlations between mental health measures and predictor variables including physical function, social support, personal meaning and religious coping are presented in Table 23.

Table 23: Correlations between Mental Health Measures and Predictor Variables

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Anxiety (HADS) | _ | | | | | | | | | |
| 2. Depression (HADS) | .75** | _ | | | | | | | | |
| 3. GHQ | .74** | .58** | _ | | | | | | | |
| 4. Mental Health (SF-36) | -.67** | -.70** | -.67** | _ | | | | | | |
| 5. PTSD | .58** | .44** | .48** | -.32** | _ | | | | | |
| 6. Physical Function (SF-36) | -.20 | -.17 | -.05 | -.00 | -.17 | _ | | | | |
| 7. Social Support | -.31** | -.39** | -.40** | .40** | -.27* | -.17 | _ | | | |
| 8. Personal Meaning | -.33** | -.28* | -.41** | .26* | -.32 | .16 | .24* | _ | | |
| 9. Religious Coping | -.41** | -.47** | -.47** | .48** | -.34** | -.14 | .48** | .35** | _ | |
| 10. Spiritual Strength | -.33** | -.42** | -.34** | .43** | -.34** | -.02 | .28* | .15 | .59** | _ |

** P < .01; * P < .05

As can be seen in Table 23, there was a significant negative correlation between anxiety, depression, GHQ, and PTSD with religious coping, spiritual beliefs, social support and personal meaning, while there was a significant positive correlation between the subscale of mental health of the SF-36 scale and predictor variables. The highest association was between religious coping and the mental health measures. The results also revealed a significant correlation between the measure of spiritual strength of belief and religious coping.

In addition, there was a non significant association between physical function and mental health indicators including PTSD, and a non-significant negative correlation between physical function and religious coping. Also there was a relatively high intercorrelation between different scales of mental health including HADS (Anxiety), HADS (Depression), IES-R, GHQ, and SF-36 (MH). The results are presented in Table 24.

Table 24: Correlations between the Measures of Mental Health

| Measure | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1. GHQ | 1 | | | | |
| 2. HADS- Anxiety | .74** | 1 | | | |
| 3. HADS- Depression | .59** | .75** | 1 | | |
| 4. SF-36- (MH) | -.66** | -.68** | -.69** | 1 | |
| 5. IES-R | .49** | .58** | .44** | -.33** | 1 |

*p < .05, **p < .01

*7.4.2.3 Association between the Dimensions of PTSD and Mental Health Measures*

Pearson's correlations were used to examine the relationship between the dimensions of PTSD and mental health problems. The results of this research showed a significant correlation between the scales of IES-R and the measures of mental health except between intrusion and depression and mental health. The highest association was

between the Hyper-arousal and mental health measures, while the Intrusion was found to have lowest correlation. Intrusion was only correlated with anxiety and GHQ significantly. The results are shown in Table 25.

Table 25: Relationships between the Scales of IES-R and Mental Health Measures

| Subscale | GHQ | HADS (Anxiety) | HADS (Depression) | MH (SF-36) |
|---|---|---|---|---|
| Avoidance | .37** | .40** | .42** | -.28* |
| Intrusion | .29** | .35** | .12 | -.06 |
| Hyper-arousal | .51** | .66** | .54** | -.53** |

#### *7.4.2.4 Relationships between Adaptive and Maladaptive Coping Strategies and Mental Health Measures*

Pearson product-moment correlation coefficients were calculated to assess the relationships between various coping strategies of COPE scale with Anxiety, Depression, GHQ, and PTSD. The results are presented in Table 26. There was a significant negative association between constructive coping strategies and some of the mental health measures. As can be seen in Table 26, positive reframing was correlated with depression, and GHQ; also acceptance was correlated with anxiety, depression, GHQ, and PTSD. In addition, there was a significant positive correlation between unconstructive coping methods and mental health variables. Research showed that self-blame and denial were correlated with anxiety; denial was also correlated with PTSD.

Table 26: Relationships between Mental Health Measures and COPE Subscales

| Measure | Self-destruction | Denial | Behaviour disengagement | Positive reframing | Planning | Humour | Acceptance | Religion | Self-Blame |
|---|---|---|---|---|---|---|---|---|---|
| Anxiety (HADS) | -.02 | .27* | .22 | -.20 | -.00 | -.09 | -.30** | -.26* | .29** |
| Depression (HADS) | -.15 | .17 | .16 | -.30** | -.14 | -.03 | -.28* | -.30** | .22 |
| GHQ | -.00 | .16 | .16 | -.38** | -.20 | -.23* | -.41** | -.36** | .21 |
| PTSD | .22 | .37** | .02 | -.20 | -.06 | .02 | -.29** | -.17 | .20 |

*p < .05, **p < .01

### 7.4.3 Examining the Contributions of Predictor Variables on Mental Health

A series of hierarchical analyses were carried out to examine the amount of variance explained by each of the predictor variables including physical function, religious coping (practice and benevolent reappraisal), personal meaning and social support. In each of the analyses to follow, the outcome variables (i.e., depression, anxiety, PTSD, mental health, and general mental health) were regressed on physical function, social support, personal meaning and religious coping. The order of entering of predictor variables on the regression was based on the theoretical conceptualization and findings of previous researches on psychological well-being (Fry, 2000; Tix & Frazier, 1998). For the following analyses, the physical function variable was entered in the model at step 1, and then social support and personal meaning variables were entered at the second and third step, respectively. Finally, religious coping was entered in step four.

#### *7.4.3.1 Results of Regression Analyses on Depression*

To examine whether religious coping contributed unique variance to the prediction of depression, four sets of hierarchical regression were conducted. In the first set of analyses, the physical function variable was entered in Step 1, but failed to account for significant variance in depression. When social support was entered as a second variable in step 2, it accounted for 21% of the variance, which was a significant contribution. The third variable to be entered this time was personal meaning; it accounted for 24% of the variance and did not contribute a significant proportion of the variance. The final variable to be entered was religious coping in step 4. With physical function, social support, and personal meaning variables controlled in step 1, 2, and 3, religious coping accounted for an additional 8% of the variance and contributed a significant and sizable proportion of the variance in depression. The results of the multiple regressions are presented in Table 27.

Table 27: Summary of Hierarchical Regression Analysis for Variables Predicting Depression (N = 78)

| Variable | $R^2$ | B | SE B | *Beta* |
|---|---|---|---|---|
| Step 1 | .03 | | | |
| Physical Function | | -.02 | .01 | -.18 |
| Step 2 | .21 | | | |
| Physical Function | | -.03 | .01 | -.25* |
| Social Support | | -1.86 | .46 | -.43*** |
| Step 3 | .24 | | | |
| Physical Function | | -.02 | .01 | -.22* |
| Social Support | | -1.65 | .47 | -.38** |
| Personal Meaning | | -0.05 | .03 | -.17 |
| Step 4 | .32 | | | |
| Physical Function | | -0.03 | .01 | -.26* |
| Social Support | | -1.07 | .50 | -.25* |
| Personal meaning | | -0.03 | .03 | -.10 |
| Religious Coping | | -0.15 | .05 | -.33** |

*p < 0.05. **p < 0.01. ***p < 0.001

### *7.4.3.2 Results of Regression Analyses on Anxiety*

In the second hierarchical regression analysis, the dependent variable was anxiety. In these analyses, four sets of hierarchical regression were performed. In a hierarchical multiple regression, physical function was entered first and explained a marginal percentage of the variance in anxiety. When social support was entered second, a significant increment of 17% of the variance was explained. When personal meaning was entered third, it failed to account for a significant contribution of variance in anxiety.

When the final variable, religious coping, was entered fourth in step 4, it accounted for an additional 6% of the variance and contributed a significant variance in anxiety. The results of the multiple regressions are presented in table 28.

Table 28: Summary of Hierarchical Regression Analysis for Variables Predicting Anxiety (N = 78)

| Variable | $R^2$ | B | SE B | *Beta* |
|---|---|---|---|---|
| Step 1 | .04 | | | |
| Physical Function | | -.03 | .01 | -.21 |
| Step 2 | .17 | | | |
| Physical Function | | -.04 | .01 | -.27* |
| Social Support | | -1.64 | .50 | -.36** |
| Step 3 | .20 | | | |
| Physical Function | | -.03 | .01 | -.23* |
| Social Support | | -1.41 | .51 | -.31** |
| Personal Meaning | | -.05 | .03 | -.18 |
| Step 4 | .26 | | | |
| Physical Function | | -.04 | .01 | -.27* |
| Social Support | | -.88 | .54 | -.19 |
| Personal meaning | | -.03 | .03 | -.11 |
| Religious Coping | | -.14 | .06 | -.29* |

*p < 0.05 **p < 0.01

### *7.4.3.3 Results of Regression Analyses on PTSD*

To investigate the effects of predictor variables on PTSD, a hierarchical regression was performed, and predictor variables were entered on a four-step hierarchical regression. In predicting PTSD, physical function was entered at step 1; it failed to account for a significant contribution in PTSD. When social support was entered in step

2, it made a significant contribution for 13% of the variance. With personal meaning included in step 3, the prediction increased by 4%, although, this was not quite significant. With religious coping included in the fourth step, the predicted variance significantly increased by 6%. The results are presented in Table 29.

Table 29: Summary of Hierarchical Regression Analysis for Variables Predicting PTSD (N = 78)

| Variable | $R^2$ | B | SE B | *Beta* |
|---|---|---|---|---|
| Step 1 | .03 | | | |
| Physical Function | | -.07 | .05 | -.17 |
| Step 2 | .13 | | | |
| Physical Function | | -.10 | .05 | -.23* |
| Social Support | | -4.60 | 1.58 | -.32** |
| Step 3 | .17 | | | |
| Physical Function | | -.08 | .05 | -.18 |
| Social Support | | -3.73 | 1.61 | -.26* |
| Personal Meaning | | -.21 | .10 | -.22* |
| Step 4 | .23 | | | |
| Physical Function | | -.09 | .05 | -.21 |
| Social Support | | -2.19 | 1.73 | -.15 |
| Personal meaning | | -.15 | .11 | -.16 |
| Religious Coping | | -.40 | .18 | -.27* |

*p < 0.05 **p < 0.01

*7.4.3.4 Results of the Regression Analyses on Mental Health*

To examine the contribution of physical function, social support, personal meaning, and religious coping on mental health measuring by SF-36, four set of regression analyses were conducted. In the first set of analyses the physical function variable was entered in step 1; it failed to account for a significant contribution in the variance of

mental health. In the second set of analyses, social support was entered in step 2; it accounted for additional 16% of variance, which was a significant contribution in the variance of mental health. When personal meaning was entered in step 3, it accounted for 18% of the variance and did not contribute a significant contribution in mental health. The final variable to be entered in step 4 was religious coping. With physical function, social support, personal meaning and religious coping controlled in step 1, 2, and 3, religious coping accounted for an additional 6% of the variance and contributed a significant variance in mental health. The results are presented in Table 30. In addition, social support was a significant contributor to the variance in mental health, in step 4.

Table 30: Summary of Hierarchical Regression Analysis for Variables Predicting Mental Health (N = 78)

| Variable | $R^2$ | B | SE B | *Beta* |
|---|---|---|---|---|
| Step 1 | .00 | | | |
| Physical Function | | -.00 | .07 | -.00 |
| Step 2 | .16 | | | |
| Physical Function | | .04 | .07 | .07 |
| Social Support | | 8.80 | 2.34 | .41*** |
| Step 3 | .18 | | | |
| Physical Function | | .02 | .07 | .04 |
| Social Support | | 8.00 | 2.44 | .37** |
| Personal Meaning | | .18 | .16 | .13 |
| Step 4 | .24 | | | |
| Physical Function | | .05 | .07 | .08 |
| Social Support | | 5.47 | 2.58 | .26* |
| Personal meaning | | .08 | .16 | .06 |
| Religious Coping | | .66 | .28 | .30* |

*p < 0.05. **p < 0.01. ***p < 0.001

*7.4.3.5 Results of Regression Analyses on General Mental Health*

In the fourth hierarchical regression analysis (see Table 31), the contribution of each predictor variable in a four-step hierarchical analysis was examined. The dependent variable was general mental health measured by the GHQ. Physical function was the first predictor to be entered in step 1; it failed to account for a significant contribution in variance in general health. When social support was entered second in step 2, a significant increment of 18% of the variance was explained. When personal meaning was entered third, it accounted for 24% variance which was a significant contribution in general mental health. The final variable to be entered was religious coping in step 4. With predictor variables controlled in step1, 2, and 3, religious coping added 5% of the variance which was a significant proportion of the variance in general mental health.

Table 31: Summary of Hierarchical Regression Analysis for Variables Predicting General Psychological Health (GHQ)

| Variable | $R^2$ | B | SE B | *Beta* |
|---|---|---|---|---|
| Step 1 | .00 | | | |
| Physical Function | | -.01 | .02 | -.06 |
| Step 2 | .17 | | | |
| Physical Function | | -.02 | .01 | -.13 |
| Social Support | | -2.45 | .64 | -.43*** |
| Step 3 | .24 | | | |
| Physical Function | | -.01 | .01 | -.07 |
| Social Support | | -2.10 | .65 | -.35** |
| Personal Meaning | | -.10 | .04 | -.26* |
| Step 4 | .29 | | | |
| Physical Function | | -.01 | .01 | -.10 |
| Social Support | | -1.47 | .69 | -.24* |
| Personal meaning | | -.08 | .04 | -.21 |
| Religious Coping | | -.16 | .07 | -.26* |

*p < 0.05. **p < 0.01. ***p < 0.001

## 7.5 Conclusions

The present research indicated a low prevalence of mental health problems such as PTSD, anxiety and depression among Iranian veterans with physical disability. The findings also showed that veterans used positive religious coping more frequently than negative religious coping strategies. Moreover, there was a significant association between the use of negative religious coping and mental health problems. Results also indicated that religious coping had a significant contribution on the mental health of veterans beyond and above other relevant variables such as physical function, social support, and personal meaning.

# Chapter Eight: Discussion

## 8.1 Chapter Overview

The assumption behind thesis was that religious beliefs and practices may have an impact on the coping of people with physical disability and traumatic experiences. The main aim of this thesis was to examine the role of religious coping alongside physical function, social support, and personal meaning on the mental health of disabled war veterans. The current chapter will begin by summarising the main findings of the research. The chapter will then discuss findings on the prevalence of mental health problems, relationship between religious coping and mental health, and the contribution of religious coping, physical function, social support, and personal meaning on mental health.

## 8.2 Summary of Main Findings

This thesis was examined the contribution of religious coping alongside personal meaning, social support and physical function on the mental health of Iranian veterans. In particular, it was hypothesized that religiosity in a Muslim sample would show effects on well-being independently of other psychological and social variables. The results of the present research showed that when physical function, social support and personal meaning were controlled, religious coping had a significant contribution on mental health indicators including symptoms of depression, anxiety and PTSD above and beyond other predictor variables. The current study also indicated that social support had the most significant contribution on the mental health of participants after religious coping. The results of multiple regression analyses did not find any significant contribution for personal meaning on mental health variables after other variables were controlled. The findings of this study also showed that Iranian veterans appeared to have a low prevalence of anxiety, depression, and PTSD compared with studies on U.S and other Western samples. In addition, the current study demonstrated a significant negative association between positive religious coping and distress including anxiety and

depression. The results of the current research also indicated a significant correlation between the use of maladaptive coping strategies and mental health problems.

### 8.3 Prevalence of PTSD and Other Mental Health Problems

The current research showed that Iranian disabled veterans had a low prevalence of mental health problems. The results support the research hypothesis that a low proportion of disabled veterans would have mental health problems. Although the number of participants recruited for this study was not sufficient to draw a conclusion on the prevalence of mental health problems, the low prevalence of symptoms of PTSD, depression and anxiety among veterans may have several reasons.

As noted in Chapter 6, it seems that Iranian veterans viewed their involvement in war as a resistance and a religious and national duty to defend their territory. Therefore, this perception gave meaning to their actions and they saw their involvement in war as sacred. They were told that to be killed in the path of God is in fact martyrdom and also to suffer for the willing of God; therefore, this perception may help them to cope with the worst traumatic experiences to which they were exposed.

Another important reason that this sample of Iranian veterans had a low prevalence of mental health problems may be due to the social support that they received from family, combat comrades and community. It seems that veterans' spouses played a very important role in supporting them. During and after the conflict, it was an honour for some Iranian females to marry veterans. The study showed that participants scored relatively highly on various scales of social support measure. Previous research on veterans has emphasized that social support is a significant buffering factor for veterans to cope with their traumatic experiences (see Hunt & Robbins, 2001a; Solomon et al., 1986). The majority of Iranians supported troops during and after the war. Furthermore, Iranian culture as a collectivist culture emphasizes social networks and support. The findings of this research on the positive relation between use of social support and well-being are similar with some other studies on Iranian veterans indicating that individuals with higher social support experienced lower depression (see Ebrahimi et al., 2000).

The findings of the present study showed that participants had relatively low mean score on the scales of Avoidance (M = 6.98) and Hyper-arousal (M = 5.67) and a moderate mean score on Intrusion (M = 12.03) of IES-R. With regard to that participants of this research might have perceived the items of Avoidance and Intrusion differently; therefore, the findings on these two scales should be interpreted with caution. Furthermore, any conclusion on diagnosis of PTSD requires a complete range of assessment particularly, a clinical interview. The moderate mean score on intrusion may have different implications. It may reflect the fact that veterans are encouraged to think back on the memories of war as a positive experience. It has been argued that a high score on this dimension has diagnostic implications (see Creamer et al., 1992). On the other hand, some have argued that although intrusive thinking is diagnostic of disorder, it also represents part of the normal process of trauma appraisal (e.g., McFarlane, 1992).

Moreover, the relatively low association between the scale of Intrusion and other mental health measures in this study add more support to the notion that a relatively moderate score on this scale must not be interpreted as a sign of PTSD, but may reflect a normal condition (see Chapter 7). Furthermore, Iranian culture encourages people to talk about their experiences. Hunt and Robbins (2001a) noted that narrative experiences of war act as a means of dealing with the traumatic experience of war. While Hunt's participants used avoidant strategy more frequently, Iranian veterans are encouraged to express their memories of war.

The finding of this study indicating a low prevalence of mental health problems among the disabled war veterans is inconsistent with the findings of some other studies conducted in Iran on disabled veterans reviewed earlier (e.g., Abhari, 2001; Zarghami, 2001). The low prevalence of PTSD, anxiety and depression among this research sample compared to earlier investigations on Iranian veterans may be because the demographic characteristics of participants have been changed. As noted earlier, the veterans involving in the Iran-Iraq war were mostly young and single and now these demographic characteristics have altered. For example in the early studies on veterans most of the veterans were single, but in this study except for one case the veterans were all married.

In the previous studies on disabled veterans, the researchers had reported a low education level among most veterans (see Maleki, 1996). For example, 60% of participants in Maleki's (1996) study had primary school education. In several investigations, a positive association was found between a low education level and the health problems of disabled veterans (see Farshidfard, 1993 for review), while in this research's sample, the education status of participants was good and more than 44% of veterans had an education at university level. In addition, it seems that veterans of this study had a better financial situation compared to the time when the earlier studies were carried out on veterans. For example, in several studies, there was a significant association between income and the mental health outcomes of veterans (see Abhari, 2001). Indeed, when the war came to an end, the government tried to improve the situation of disabled war veterans in various areas including education and providing facility. The research carried out on the veterans of World War II and Vietnam also found a positive relationship between demographics characteristic and psychological problems of veterans (Kulka et al., 1990).

Most importantly, the participants of the current study were recruited from the general population of disabled veterans, while previous studies recruited veterans through veterans who suffered from mental health problems and were referred for treatment. Furthermore, some participants of the current study may have had less intensive combat experiences and were injured outside of battle. In addition, in the years after the conflict when the extent of disabled veterans' health problems was assessed, they might have tried to exaggerate their problems, particularly their psychological problems in order to gain extra benefits. But this study was conducted eighteen years after the war and there was no gain to be obtained from exaggerating their problems.

Moreover, the findings of this research indicated no significant difference on mental health problems between veterans who were exposed to chemical weapons and veterans with other physical disabilities, although veterans with chemical injuries had a higher proportion of PTSD, depression and anxiety than non-chemical-injured veterans. The results do not support the research hypothesis or other research indicating veterans

with chemical exposure had more psychological problems (see Schnur et al., 2000). However, the small sample size of veterans with chemical exposure makes it difficult to draw any conclusion on this issue.

Furthermore, the results of the present research found a significant difference between deployed and volunteer veterans on PTSD and depression. The volunteer veterans had a lower prevalence of mental health problems than the deployed veterans, while deployed veterans had a higher score on IES-R. These results support research hypothesis that deployed veterans would experience more mental health problems than volunteer veterans. These findings support other studies carried out on veterans in Iran concluding that those who took part voluntarily at war had less mental health problems (see Ebrahimi et al., 2000). The involvement in this war for Iranians was completely different from other recent major conflicts. They saw their involvement as a national and religious duty. Unfortunately, the deployed sample contained only 15 veterans; therefore, the results on comparisons should be interpreted with caution.

### 8.4 Use of Religious Coping Strategies

As predicted, the participants in this study used positive religious coping strategies (practice and benevolent reappraisal) more frequently and the percentage of individuals using negative religious coping strategies was very low. The results of study support research hypothesis that participant would use positive religious coping more frequently than negative religious coping. While in some other studies on people with physical diseases, researchers reported a lower use of positive religious coping methods and a higher use of negative religious coping methods compared with the Iranian sample. For example, Anderson et al., (1993) reported that 23% of their participants who were rehabilitation patients believed that God was punishing them. Salisbury et al. (1989) also in their study reported that 27% of their sample was angry with God and a similar proportion was asking why God allowed them to suffer.

The greater use of religious coping by participants in this research also reflects the religiousness of Iranians. Previous studies have documented that religious individuals use

religious coping more frequently than people with lower levels of religiosity (see Pargament et al., 1998). Veterans scored relatively high scores on the Spiritual Strength scale (Mean = 8.68, SD = 1.52). These findings support the notion that participants who took part in this research were mainly religious. The veterans in this study also used positive religious coping more frequently than the university students in the previous study (see Chapter 5). This supports the literature that individuals with physical illness are more likely to seek religion to cope with their situation. The greater use of religious coping strategies by disabled veterans also supports the underlying hypothesis and the results of previous studies that people who are suffering are more likely to seek religion and spirituality to cope with their situation (see Koenig et al., 2004; Tix et al., 1998).

Similarly, data on the COPE scale indicated that veterans in this research used the religious coping strategy more frequently than non-religious coping methods. These findings give more support to the interpretation of the results of this study.

## 8.5 Relationship between Religious Coping and Physical/Mental Health

The present study indicated a negative association between positive religious coping strategies and physical function. The correlations between physical function and positive religious coping styles such as practice and benevolent religious reappraisal in this study were not significant; therefore, the results should be interpreted with caution. Of course, the small size effect of correlations in this study indicates that participants did not have a severe or life threatening illness like cancer or Aids. Many other studies have shown that people report higher levels of religious coping in response to medical illnesses than many other problems (see Koenig et al., 1998; Tix & Frazier, 1998).

This research also showed a negative association between ignoring religious coping strategies and a poorer state of physical health. The findings of the current study were also in line with previous research indicating spiritual discontent was associated with poorer cognitive functioning, poorer quality of life and more depressed mood (see Pargament et al., 2004).

The results of the present study found a significant association between positive and negative religious coping and mental health outcomes. These findings support the research hypothesis indicating participants who used greater positive religious coping strategies would experience lower levels of mental health problems and participants who used the negative styles of religiosity would experience higher levels of psychological problems. The results of the present research are consistent with previous research suggesting that positive and negative religious coping methods are associated with lower and higher levels of distress respectively (see Pargament, 1997; Pieper & Van-Uden et al., 2005). For example, Researchers found that negative religious coping such as believing illness to be a punishment from God was associated with poor adjustment and worse subjective health (see Fitchett et al., 1999; Koenig et al., 1996). The findings of this study are also similar to Pargament et al.'s (1998) research suggesting that greater use of negative religious coping methods was associated to higher levels of emotional distress, poorer physical health, higher levels of psychosomatic symptomatology, and more PTSD symptoms in different samples. Findings highlight the important buffering role of religious and spiritual beliefs and practice on the well-being of Iranians.

The results of this study on veterans did not show any correlation between passive and active religious coping styles and most of the physical and mental health measures. It may be because participants did not have control over the situation which led to their disability and also were not able to alter or manage the problem causing distress; therefore, they were not able to use the problem-focus coping strategy to cope successfully. The findings on these dimensions support the previous research indicating that the value of these coping strategies is tied to the controllability of the life stressors (see Bickle et al., 1998). Nevertheless, results on passive and active religious coping styles should be interpreted with caution. Furthermore, the results of the present research indicating no association between active and passive religious coping strategies and physical/mental health indicators support this notion that the use of these strategies requires a situation which individuals have control over.

The present research also indicated that religious coping, social support and personal meaning were significantly related to mental health indicators such as anxiety, depression and PTSD. These findings support the results of other research indicating a relationship between spirituality/religiosity and psychological well-being (see George et al., 2000; McIntosh et al., 1993), and social support (see Ellison & Levin 1998; Pieper & Van-Uden, 2005), and personal meaning (see Peterson & Roy, 1985; Wong, 1989) in the several health context as well as specific traumatic situations.

## 8.6 Relationship between Adaptive and Maladaptive Coping and Mental Health

Findings from this research on the COPE scale demonstrated a significant association between the greater use of maladaptive coping styles and higher levels of mental health problems. These findings support the research hypothesis that participants used adaptive coping strategies would have a better mental health status than participants who used maladaptive coping methods. Results also support other research indicating that those who used maladaptive coping styles experience a higher mental health problems compared to those who used adaptive coping methods (e.g., Fillion et al., 2002).

## 8.7 Predictors of Mental Health

The current research showed a significant contribution of religious coping on the different aspects of mental health such as depression, anxiety, PTSD and general mental health among Iranian veterans. In this section the results on different measures of mental health will be discussed.

### *8.7.1 Predictors of Depression*

The findings of the present study indicated that religious coping had a significant contribution on depression of veterans beyond and above of other potential factors such as physical function, social support, and personal meaning. The results also showed that social support and physical function had a significant contribution on participants' depression. The results of the research support the research hypothesis that religious coping would have a significant contribution to the mental health of Iranian disabled war

veterans. Although religious coping had the strongest effect on depression, in the final model social support and physical function also contributed significantly to depression. However, the study showed that personal meaning did not make any contribution to veterans' depression. The results of this study suggest that disabled veterans used religious beliefs and practice to cope with their physical problems and traumatic experiences more than any other factor. The findings of this research are in contrast with some studies indicating that social support or personal meaning mediate the relationship between religion/spirituality and psychological well-being (Chamberlaine & Zika, 1989; Cohen & Wills, 1985). The results of this study confirm Pargament's conceptualization that religion is a unique contributor to mental health. It also supports previous studies that indicated that religious coping was predictive of depression (e.g., Musick & Strulowitz, 1989; Pargament et al., 2004).

### *8.7.2 Predictors of Anxiety*

The results of current study indicated that religious coping had a significant contribution on participants' anxiety when other predictor variables were controlled. The results of this study also showed that physical function had a significant effect on disabled veterans' anxiety. As hypothesized, personal meaning did not make any contribution to veterans' anxiety. These findings support the research hypothesis indicating that religious coping would have a significant contribution to mental health. Furthermore, the results of this study showed that physical disability can have an impact on the level of participants' anxiety.

### *8.7.3 Predictors of PTSD*

The results of the present study showed that religious coping had a significant contribution on the veterans' PTSD. This study demonstrated that social support, personal meaning and physical function did not have a significant contribution on PTSD, when religious coping was included in the analysis. The findings of this research support the hypothesis that religious coping would contribute to mental health more significantly than other variables such as social support and personal meaning. These findings support the

results of other studies on the impact of religious coping on stressful experiences (see Ai et al., 2005; Pargament et al., 1990).

### *8.7.4 Predictors of Mental Health (SF-36)*

The present study showed that religious coping had a significant contribution on veterans' mental health when physical function, social support, and personal meaning were controlled. The results also showed a significant contribution of social support on mental health. However, results did not show any significant effect of physical function and personal meaning on mental health. The findings of this study support the research hypothesis that religious coping would have a unique contribution to the mental health of Iranian disabled war veterans. These results do not support some other studies indicating personal meaning mediate the relationship between religiosity and mental health (e.g., Antonovsky, 1980; Zuckerman et al., 1984).

### *8.7.5 Predictors of General Mental Health (GHQ)*

The findings of the present research indicated that religious coping had a significant contribution on general psychological health beyond and above the other predictor variables. The study also showed a significant effect of social support on general psychological health. Analysis did not reveal any significant contribution of physical function and personal meaning on general mental health.

### *8.7.6 Summary on the Predictors of Mental Health*

The findings of this study showed that religious coping had a significant contribution on various dimensions of mental health including depression, anxiety and PTSD above and beyond the effects of other predictor variables such as physical function, social support, and personal meaning. The largest effect of religious coping in this study was on depression. The results of the present research do not support previous studies indicating that personal meaning and social support mediates the relationship between religiosity and psychological well-being (e.g., Antonovsky, 1980; Chamberlain & Zika, 1989; Zuckerman et al., 1984).

## 8.8 Limitations and Future Research

It is important to note that the results of this study on the prevalence of mental health should not be generalised to all Iranian disabled war veterans, as the study was limited to a small number of disabled veterans of the Iran-Iraq war. Furthermore, the number of veterans with chemical exposure was limited. For future studies a larger sample of veterans with different demographic characteristics and combat experiences should be recruited.

The majority of participants in the present study were very religious. For future research, participants with lower levels of religious beliefs and practice should be recruited as well. However, it may be that Iranian people are often very religious as the current study did not specifically set out to recruit people with strong religious beliefs. As noted earlier (see Chapter 2, section 2.6), religious people use more religious coping to deal with their difficulties compared with less religious individuals.

Most participants recruited in this study were those who took part in war voluntarily. The mental health and also the coping of veterans who did service as compulsory duty may be different from individuals who took part in war voluntarily. To compare the well-being of volunteers and deployed veterans more research needs to be done on the prevalence of mental health problems and also the impact of religious coping on the well-being of deployed veterans.

The previous research has documented the effects of various potential factors on the mental health of veterans including demographic characteristics such as age, marital status, personal resources such as hardiness, and environmental variables such as severity of combat stressors and training before deployment and social support on PTSD. The present study did not examine the impact of the above potential factors on the mental health of veterans. For future studies, the impact of these factors on mental health needs to be investigated.

Previous research has documented that the different dimensions of religiosity and spirituality influence different aspects of well-being (Pargamen et al,. 1994). Future studies can address the the impact of different aspects of religiosity on the various dimensions of mental health in Muslim samples.

It is important to acknowledge that this research was a cross-sectional study. Therefore, it can not give any information on the impact of religious beliefs on individuals' health over time. More studies are needed to examine the longitudinal effects of different types of religious coping on the physical and psychological health of people over time.

The present study was carried out with the use of questionnaires. Taking account of these limitations, future study should consider a combination of qualitative and quantitative methods to investigate the effects of religion and spirituality on the health of people with health problems. Qualitative research will increase our understanding about the unique methods of coping employed in general as well as the nature of religious coping used in stressful situations.

As noted in Chapter 6, the majority of Iranian troops had a religious motivation for going to war and they were told that war was a sacred defence. Future studies should examine whether this attitude of sanctification has any role on the well-being of veterans. Previous research has suggested a relationship between sanctification and psychological well-being (see Mahoney et al., 2003).

## 8.9 Implications of the Study

### *8.9.1 Theoretical Implications*

The findings of this study highlight the importance of religion as a significant coping strategy for Iranian Muslims with disability and traumatic experiences. The benefits of religion cannot simply be explained in terms of other social (e.g. support) or psychological (e.g. personal meaning) variables. This study represents an important

direction for researchers interested in understanding the role of religion in coping with major life stressors in an Islamic context. The present research indicates the importance of considering religion in research on coping with stressful life events, and documents the consequences of using religious coping during such events by individuals experiencing traumatic events. Furthermore, it encourages further investigation to specify more clearly the most beneficial religious coping activities found in this study and in other studies. Such research is necessary to determine whether certain types of religious coping activities should be actively encouraged (or discouraged) in different types of stressful situations to facilitate optimal adjustment (see Pargament et al, 1994).

Within the psychology of religion, researchers have begun to get closer to religious and spiritual life, articulating dimensions and measures of religion and spirituality that are linked theoretically and functionally to physical and mental health. Dimensions such as closeness to God, a religious or spiritual orientation and source of motivation, religious and spiritual support, and religious and spiritual struggle are in some sense psycho-spiritual constructs. They have roots in religious and spiritual worldviews as well as in psychological theory. In addition, they have clear implications for religious and spiritual functioning as well as for health status. Empirical studies have shown that measures of dimensions such as these, more proximal to physical and mental health, are in fact significantly tied to health. The conceptualization of different dimensions of religiosity in Islamic perspective and its association with different aspects of well-being may lead to more comprehensive understanding of its functions; researchers in Muslim communities may find that religion and spirituality are different phenomena than other psychological and social constructs. Findings of this study and also other cross-cultural studies (Kesselring et al., 1986; Loewenthal et al., 2001; Mehta, 2000) on the use of religious beliefs and practice in coping with mental health problems suggest that Muslim people may rely mainly on spiritual resources to cope with their stressful experiences and health problems compared to people in more secular societies.

Evidence is accumulating that suggests that religious belief and practices have important immediate and longer-term implications for the resolutions of critical life

events (e.g., Pargament et al. 1998). But it is also becoming clearer that the role of religion in coping is complex. The forms of religious coping elicited by stressful events may not be the kinds of coping most helpful to people over the long term. What works well for some people in one situation may not work well for others faced with a different kind of problem (see George et al. 2001; Mcintosh et al. 1993).

Theoretical frameworks of coping also suggest that we pay particular attention to the functions served by different religious coping mechanisms and their fit with the demands and challenges raised by particular life situations (Pargament, 1990). For example, we might expect good deeds and forgiveness to be especially helpful in situations that elicit guilt. On the other hand, the belief that the individual will be punished by a vengeful God may be especially problematic in these situations. Spiritual support may be particularly valuable in situations that threaten or disrupt an individual's social support network, such as divorce, dislocation, or social catastrophe. On the other hand, the sense that a distant God has left the individual essentially on his or her own in these times may be overwhelming.

Religion as an important phenomenon deserves special theoretical attention. Conceptual questions about the role of religion and spirituality are particularly important. Of course, some questions fall outside the purview of psychology. We cannot speak of the ultimate nature or reality of spirituality. Other questions, however, are approachable. How does an individual's concept and experience of religion and spirituality develop and change over the lifespan? What role does religion play in individual, family, community, and cultural life? Fortunately, however, there is a rich and relevant body of work by scholars in many disciplines (e.g., history, religious studies, economics, anthropology, medicine, sociology) who treat religion as a distinctive meaning structure (e.g., Paden, 1993).

Especially important will be studies that explore the process through which religious dimensions connect to outcomes of health and well-being. It is possible that more finely differentiated functionally relevant religious constructs account for the

religion-health connection better than secular psychological or social constructs in an Islamic context. Of course, religion may exert its effects on health and well-being through multiple paths, religious and nonreligious. An example of a particular line of research that can be suggested is investigation of the fluctuation in use of passive and active religious coping methods used by Iranian Muslims. Belief in destiny and trust in God and acceptance of the situation may lead some Muslims to not seek professional help for their problems. Future studies should investigate how religious beliefs can affect Muslims in a negative way.

Although there are religious beliefs in common among monotheistic religions, the three Abrahamic religions do have their own distinct religious belief systems. It is important that Muslim scholars in the psychology of religion conceptualize their own models of religion and its influences on different dimensions of well-being, rather than relying on those derived from Judaeo-Christian systems.

### *8.9.2 Practical Implications*

These findings may also have more practical significance. Given the impact that religious coping appears to have among physically disabled persons, both health and religious professionals in Iran should be aware of the wide prevalence of religious activity, recognize that these beliefs and practices are associated with better health status, and address religious coping in their clinical practice. Although in Iran, people facing difficult situation seek help from religious figures, nevertheless, interventions could be designed that provide access to and build on religious coping methods to help people face the challenges of physical problems and stressful experiences. To be maximally effective, these programs should be collaborative in nature, building on the unique resources of health professionals, religious professionals and research findings.

The results of the present study concerning the influence of religion, spirituality have special implications for the therapy and counselling of disabled veterans. Based on theological models of health and spirituality, which propose that spirituality helps to

ameliorate suffering, pain and physical distress, some form of spiritual-based interventions are needed that are aimed at promoting spiritual growth and advancing hope, optimism and a positive meaning for life are needed (see Idler, 1994; Koenig, 1997). The results of the present study may also help clinicians in Muslim countries to take account of the role of religious/spiritual beliefs and practices in the therapeutic processes of their clients. As already indicated religion is a very important element in Iranian life and needs to be properly integrated within the practice of health care.

In conclusion, this research on religious coping has helped us not only understand the ways religion expresses itself in a stressful situation, it has also helped set the stage for efforts to integrate religion and spirituality more fully into clinical practice.

# APPENDICES

# Appendix A: English Questionnaires

**Rigious Coping Scale**

Please read each item below and indicate, by circling the appropriate category, to what extent you used it in the situation you have faced.

---

1. Saw my situation as God's will

Not at all a little bit somewhat quite a bit a great deal

2. Viewed my situation as a trial from God

Not at all a little bit somewhat quite a bit a great deal

3. Thought suffering may bring me closer to God

Not at all a little bit somewhat quite a bit a great deal

4. Suffering and difficulties strengthened my faith

Not at all a little bit somewhat quite a bit a great deal

5. I expressed anger at God for letting this problem happen

Not at all a little bit somewhat quite a bit a great deal

6. Turned the situation over to God after doing all that I could

Not at all a little bit somewhat quite a bit a great deal

7. Sought help with prayer

Not at all a little bit somewhat quite a bit a great deal

8. Sought comfort and guidance by reading the Quran

Not at all a little bit somewhat quite a bit a great deal

9. Sought tranquillity by remembrance of God

Not at all a little bit somewhat quite a bit a great deal

10. Attended pilgrimage when I felt upset

Not at all a little bit somewhat quite a bit a great deal

11. Read the certain prayers

Not at all a little bit somewhat quite a bit a great deal

12. Tried to deal with my situation without relying on God

Not at all a little bit somewhat quite a bit a great deal

13. Stopped performing my obligatory religious duties

Not at all a little bit somewhat quite a bit a great deal

14. Didn't try to do much; just assumed God would handle it

Not at all a little bit somewhat quite a bit a great deal

15. Did what I could and turned the rest over to God

Not at all a little bit somewhat quite a bit a great deal

16. Felt God had forgotten me (Wondered if God really cares)

Not at all a little bit somewhat quite a bit a great deal

17. Appealed to Prophets and Imam

Not at all a little bit somewhat quite a bit a great deal

18. My suffering was purification of my sins

Not at all a little bit somewhat quite a bit a great deal

19. Sought patience because God is with those who patiently persevere

Not at all a little bit somewhat quite a bit a great deal

20. Didn't do much, just expected God to solve my problems for me

Not at all a little bit somewhat quite a bit a great deal

21. Realized that God cannot answer all of my prayers

Not at all a little bit somewhat quite a bit a great deal

22. Made decisions about what to do without seeking God's help

Not at all a little bit somewhat quite a bit a great deal

23. Was destined to have this situation, so I didn't try to change it

Not at all a little bit somewhat quite a bit a great deal

24. Was disappointed with God's grace and mercy

Not at all a little bit somewhat quite a bit a great deal

25. Did everything I could, then I asked God to sort out it Himself

Not at all a little bit somewhat quite a bit a great deal

## General Health Questionnaire

Name.....

We want to know how your health has been in general over the last few weeks. Please read the questions below and each of the four possible answers. Circle the response that best applies to you. Thank you for answering all the questions.

**Have you recently:**

1. been able to concentrate on what you're doing?

better than usual (0) same as usual (1) less than usual (2) much less than usual (3)

2. lost much sleep over worry?

Not at all no more than usual rather more than usual much more than usual

3. felt that you are playing a useful part in things?

more so than usual same as usual less so than usual much less than usual

4. felt capable of making decisions about things?

more so than usual same as usual less than usual much less than usual

5. felt constantly under strain?

Not at all no more than usual rather more than usual much more than usual

6. felt you couldn't overcome your difficulties?

Not at all no more than usual rather more than usual much more than usual

7. been able to enjoy your normal day to day activities?

more so than usual same as usual less so than usual much less than usual

8. been able to face up to your problems?

more so than usual same as usual less than usual much less than usual

9. been feeling unhappy or depressed?

not at all no more than usual rather more than usual much more than usual

10. been losing confidence in yourself?

not at all  no more than usual  rather more than usual  much more than usual

11. been thinking of yourself as a worthless person?

not at all  no more than usual  rather more than usual  much more than usual

12. been feeling reasonably happy, all things considered?

more so than usual  same as usual  less so than usual  much less than usual

**Life Attitude Profile-Revised**

---

This questionnaire contains a number of statements related to opinions and feeling about yourself and life in general. Read each statement carefully, then, indicate the extent to which you agree or disagree by circling one of the alternative categories provided. For example, if you strongly agree, circle SA following the statement. If you moderately disagree, circle MD. If you are undecided, circle U. Try to use the undecided category sparingly.

---

| Strongly agree | Agree | Moderately agree | Undecided | Moderately disagree | Disagree | Strongly disagree |
|---|---|---|---|---|---|---|
| **(SA)** | **(A)** | **(MA)** | **(U)** | **(MD)** | **(D)** | **(SD)** |

| | | |
|---|---|---|
| 1 | My past achievements have given my life meaning and purpose | SA A MA U MD D SD |
| 2 | In my life I have very clear goals and aims | SA A MA U MD D SD |
| 3 | I regard the opportunity to direct my life to be very important | SA A MA U MD D SD |
| 4 | I seem to change my main objectives in life | SA A MA U MD D SD |
| 5 | I have discovered a satisfying life purpose | SA A MA U MD D SD |
| 6 | I feel that some element which I can't quite define is missing from my life | SA A MA U MD D SD |
| 7 | The meaning of life is evident in the world around us | SA A MA U MD D SD |

| Strongly agree **(SA)** | Agree **(A)** | Moderately agree **(MA)** | Undecided **(U)** | Moderately disagree **(MD)** | Disagree **(D)** | Strongly disagree **(SD)** |
|---|---|---|---|---|---|---|

| | | |
|---|---|---|
| 8 | I think that I am generally much less concerned about death than those around me | SA A MA U MD D SD |
| 9 | I feel the lack of, and a need to find a real meaning and purpose in my life | SA A MA U MD D SD |
| 10 | New and different things appeal to me | SA A MA U MD D SD |
| 11 | My accomplishments in life are largely determined by my own efforts | SA A MA U MD D SD |
| 12 | I have been aware of an all powerful and consuming purpose towards which my life has been directed | SA A MA U MD D SD |
| 13 | I try new activities or areas of interest and find that they soon lose their attractiveness | SA A MA U MD D SD |
| 14 | I would enjoy breaking loose from the routine of life | SA A MA U MD D SD |
| 15 | Death makes little difference to me one way or another | SA A MA U MD D SD |
| 16 | I have a philosophy of life that gives my existence significance | SA A MA U MD D SD |
| 17 | I determine what happens in my life | SA A MA U MD D SD |
| 18 | Basically, I am living the kind of life I want to live | SA A MA U MD D SD |

| Strongly agree **(SA)** | Agree **(A)** | Moderately agree **(MA)** | Undecided **(U)** | Moderately disagree **(MD)** | Disagree **(D)** | Strongly disagree **(SD)** |
|---|---|---|---|---|---|---|

| | | |
|---|---|---|
| 19 | Concerning my freedom to make my own choice, I believe I am absolutely free to make all life choices | SA A MA U MD D SD |
| 20 | I have experienced the feeling that while I am destined* to accomplish something important, I cannot put my finger on just what it is | SA A MA U MD D SD |
| 21 | I am restless | SA A MA U MD D SD |
| 22 | Even though death waits, I am not concerned about it | SA A MA U MD D SD |
| 23 | It is possible for me to live my life in terms of what I want to do | SA A MA U MD D SD |
| 24 | I feel the need for adventure* and "new worlds to conquer" | SA A MA U MD D SD |
| 25 | I would neither fear death nor welcome it | SA A MA U MD D SD |
| 26 | I know where my life is going in the future | SA A MA U MD D SD |
| 27 | In thinking of my life, I see a reason for my being here | SA A MA U MD D SD |
| 28 | Since death is a natural aspect of life, there is no sense worrying about it | SA A MA U MD D SD |

| Strongly Agree **(SA)** | Agree **(A)** | Moderately Agree **(MA)** | Undecided **(U)** | Moderately Disagree **(MD)** | Disagree **(D)** | Strongly Disagree **(SD)** |
|---|---|---|---|---|---|---|

| | | |
|---|---|---|
| 29 | I have a framework that allows me to understand or make sense of my life | SA A MA U MD D SD |
| 30 | My life is in my hands and I am in control of it | SA A MA U MD D SD |
| 31 | In achieving life's goals, I have felt completely fulfilled | SA A MA U MD D SD |
| 32 | Some people are very frightened of death, but I am not | SA A MA U MD D SD |
| 33 | I daydream of finding a new place for my life and a new identity | SA A MA U MD D SD |
| 34 | A new challenge* in my life would appeal to me now | SA A MA U MD D SD |
| 35 | I have a sense that parts of my life fit together into a unified pattern | SA A MA U MD D SD |
| 36 | I hope for something exciting in the future | SA A MA U MD D SD |
| 37 | I have a mission* in life that gives me a sense of direction | SA A MA U MD D SD |
| 38 | I have a clear understanding of the ultimate meaning of life | SA A MA U MD D SD |

| Strongly agree **(SA)** | Agree **(A)** | Moderately agree **(MA)** | Undecided **(U)** | Moderately disagree **(MD)** | Disagree **(D)** | Strongly disagree **(SD)** |
|---|---|---|---|---|---|---|

| | | |
|---|---|---|
| 39 | When it comes to important life matters I make my own decisions | SA A MA U MD D SD |
| 40 | I find myself withdrawing from life with an "I don't care" attitude | SA A MA U MD D SD |
| 41 | I am eager to get more out of life than I have so far | SA A MA U MD D SD |
| 42 | Life to me seems boring and uneventful | SA A MA U MD D SD |
| 43 | I am determined to achieve new goals in the future | SA A MA U MD D SD |
| 44 | The thought of death seldom enters my mind | SA A MA U MD D SD |
| 45 | I accept personal responsibility for the choice I have made in my life | SA A MA U MD D SD |
| 46 | My personal existence is orderly and coherent | SA A MA U MD D SD |
| 47 | I accept death as another life experience | SA A MA U MD D SD |
| 48 | My life is running over with exciting good things | SA A MA U MD D SD |

## SOURCE OF MEANING PROFILE-REVISED

This questionnaire contains a number of statements which assess the sources of meaning in people's lives. Read each statement carefully and decide how **meaningful** each source is in your life at the **present time**.

Select one of the 7 scale values that best describes your personal situation and place the number in the space provided, as shown below:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **not at all meaningful** | | | **moderately meaningful** | | | **extremely meaningful** |

Please answer as honestly as possible. Be sure that your answer is in the correct blank and that all blanks are filled in.

------- 1. Participation in leisure activities.

------- 2. Meeting basic, everyday needs.

------- 3. Taking part in creative needs.

------- 4. Engaging in personal relationships with family and/ or friends.

------- 5. Being acknowledged for personal achievements.

------- 6. Experiencing personal growth.

------- 7. Taking part in religious activities.

------- 8. Interest in social causes.

------- 9. Being of service to others.

------- 10. Preserving human values and ideals.

------- 11. Preservation of culture and tradition.

------- 12. Leaving a legacy for the next generation.

------- 13. Feeling financially secure.

------- 14. Interest in human rights (humanistic concerns).

------- 15. Participation in "hedonistic" activities (e.g., gambling, parties, etc.).

------- 16. Acquiring material possession in order to enjoy the good life

------- 17. Relationship with nature.

**Life Regard Index (Framework)**

---

Below are 14 statements that you may agree or disagree with. Using the 1-7 scale below indicates your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

7- Strongly agree
6- Moderately agree
5- Agree
4- Neutral
3- Disagree
2- Moderately disagree
1-Strongly disagree

—1. I feel like I have found a really significant meaning for leading my life.

—2. I have really come to terms with what's important for me in my life.

—3. I have a system or framework that allows me to truly understand my being alive.

—4. I have a very clear idea of what I'd like to do with my life.

—5. There are things that I devote all my life's energy to it.

—6. I have a philosophy of life that really gives my living significance.

—7. I have some aims and goals that would personally give me a great deal of Satisfaction if I could accomplish them.

—8. I just don't know what I really want to do with my life.

—9. I really don't have much of a purpose for living, even for myself.

—10. I need to find something that I can really be committed to.

—11. I get completely confused when I try to understand my life.

—12. There honestly isn't anything that I totally want to do.

—13. I really don't believe in anything about my life very deeply.

—14. Other people seem to have a much better idea of what they want to do with their lives than I do.

**Spiritual Scale**

This questionnaire concerns your beliefs and views about life. We are now going to ask you some questions about religious and spiritual beliefs. Please try to answer them even if you have little interest in religion.

In using the word *religion*, we mean the actual practice of a faith, e.g. going to a temple, mosque, church or synagogue. Some people do not follow a specific religion but do have *spiritual* beliefs or experiences. For example, they may believe that there is some power or force other than themselves that might influence their life. Some people think of this as God or gods, others do not. Some people make sense of their lives without any religious or spiritual belief.

To what religion faith do you belong? ----------

1. Some people hold strongly to their views and others do not. How strongly do you hold to your religious/spiritual view of life? Circle the number that best describe your view.

Weakly 0 1 2 3 4 5 6 7 8 9 10 Strongly
held view ---------- held view

2. How important to you is the practice of your belief (e.g. private meditation, religious services) in your day-to-day life? Please circle the number on the scale which best describes your view.

Not 0 1 2 3 4 5 6 7 8 9 10
Essential
necessary ----------

You can explain further if you would like to:

3. Do you believe in a spiritual power or force other than yourself that can *influence* what happens to you in our day-to-day life? Please circle the number on the scale which best describes your view.

No influence 0 1 2 3 4 5 6 7 8 9 10 Strong influence

4. Do you believe in a spiritual power or force other than yourself that enables you to cope personally with events in your life? Please circle the number on the scale which best describes your view.

No help 0 1 2 3 4 5 6 7 8 9 10 A great help

5. Do you believe in a spiritual power or force other than yourself that influences world affairs, e.g. wars? Please circle the number on the scale which best describes your view.

No influence 0 1 2 3 4 5 6 7 8 9 10 Strong influence

6. Do you believe in a spiritual power or force other than yourself that influences natural disasters, like earthquakes, floods? Please circle the number on the scale which best describes your view.

No influence 0 1 2 3 4 5 6 7 8 9 10 Strong influence

## Self-Determination Scale

Instructions: Please read the pairs of statements, one pair at a time, and think about which statement within the pair seems more true to you at this point in your life. Indicate the degree to which statement A feels true, relative to the degree that Statement B feels true, on the 5-point scale shown after each pair of statements. If statement A feels completely true and statement B feels completely untrue, the appropriate response would be 1. If the two statements are equally true, the appropriate response would be a 3. If only statement B feels true And so on.

1. A. I always feel like I choose the things I do.

   B. I sometimes feel that it's not really me choosing the things I do.

**Only A feels true** 1 2 3 4 5 **Only B feels true**

2. A. My emotions sometimes seem alien to me.

   B. My emotions always seem to belong to me.

**Only A feels true** 1 2 3 4 5 **Only B feels true**

3. A. I choose to do what I have to do.

   B. I do what I have to, but I don't feel like it is really my choice.

**Only A feels true** 1 2 3 4 5 **Only B feels true**

4. A. I feel that I am rarely myself.

   B. I feel like I am always completely myself.

**Only A feels true** 1 2 3 4 5 **Only B feels true**

5. A. I do what I do because it interests me.

   B. I do what I do because I have to.

**Only A feels true** 1 2 3 4 5 **Only B feels true**

6. A. When I accomplish something, I often feel it wasn't really me who did it.

B. When I accomplish something, I always feel it's me who did it.

**Only A feels true** 1 2 3 4 5 **Only B feels true**

7. A. I am free to do whatever I decide to do.

B. What I do is often not what I'd choose to do.

**Only A feels true** 1 2 3 4 5 **Only B feels true**

8. A. My body sometimes feels like a stranger to me.

B. My body always feels like me.

**Only A feels true** 1 2 3 4 5 **Only B feels true**

9. A. I feel pretty free to do whatever I choose to.

B. I often do things that I don't choose to do.

**Only A feels true** 1 2 3 4 5 **Only B feels true**

10. A. Sometimes I look into the mirror and see a stranger.

B. When I look into the mirror I see myself.

**Only A feels true** 1 2 3 4 5 **Only B feels true**

**Satisfaction with Life Scale**

DIRECTIONS: Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number in the line preceding that item. Please be open and honest in your responding.

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Neither Agree or Disagree
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

_____1. In most ways my life is close to my ideal.

_____2. The conditions of my life are excellent.

_____3. I am satisfied with life.

_____4. So far I have gotten the important things I want in life.

_____5. If I could live my life over, I would change almost nothing.

## PANAS

**Directions**

This scale consists of a number of words that describe different feelings and emotions. Read each item and then circle the appropriate answer next to that word. Indicate to what extent you have felt this way during the past week.

Use the following scale to record your answers.

| | **Very slightly or not at all** | A little | **Moderately** | **Quite a bit** | Extremely |
|---|---|---|---|---|---|
| 1. Interested | 1 | 2 | 3 | 4 | 5 |
| 2. Distressed | 1 | 2 | 3 | 4 | 5 |
| 3. Excited | 1 | 2 | 3 | 4 | 5 |
| 4. Upset | 1 | 2 | 3 | 4 | 5 |
| 5. Strong | 1 | 2 | 3 | 4 | 5 |
| 6. Guilty | 1 | 2 | 3 | 4 | 5 |
| 7. Scared | 1 | 2 | 3 | 4 | 5 |
| 8. Hostile | 1 | 2 | 3 | 4 | 5 |
| 9. Enthusiastic | 1 | 2 | 3 | 4 | 5 |
| 10. Proud | 1 | 2 | 3 | 4 | 5 |
| 11. Irritable | 1 | 2 | 3 | 4 | 5 |
| 12. Alert | 1 | 2 | 3 | 4 | 5 |
| 13. Ashamed | 1 | 2 | 3 | 4 | 5 |
| 14. Inspired | 1 | 2 | 3 | 4 | 5 |
| 15. Nervous | 1 | 2 | 3 | 4 | 5 |
| 16. Determined | 1 | 2 | 3 | 4 | 5 |
| 17. Attentive | 1 | 2 | 3 | 4 | 5 |
| 18. Jittery | 1 | 2 | 3 | 4 | 5 |
| 19. Active | 1 | 2 | 3 | 4 | 5 |
| 20. Afraid | 1 | 2 | 3 | 4 | 5 |

**Rosenberg Self-Esteem Scale**

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

| | | | | | |
|---|---|---|---|---|---|
| 1 | On the whole, I am satisfied with myself. | SA | A | D | SD |
| 2 | At times, I think I am not good at all. | SA | A | D | SD |
| 3 | I feel that I have a number of good qualities. | SA | A | D | SD |
| 4 | I am able to do things as well as most other people. | SA | A | D | SD |
| 5 | I feel I do not have much to be proud of | SA | A | D | SD |
| 6 | I certainly feel useless at times. | SA | A | D | SD |
| 7 | I feel that I am a person of worth, at least on an equal plane with others. | SA | A | D | SD |
| 8 | I wish I could have more respect for myself. | SA | A | D | SD |
| 9 | All in all, I am inclined to feel that I am a failure. | SA | A | D | SD |
| 10 | I take a positive attitude toward myself. | SA | A | D | SD |

**Centre for Epidemiologic Studies Short Depression Scale**

Below is a list of some of the ways you may have felt or behaved. Please indicate how often you have felt this way during the **past week**: (circle **one** number on each line)

**During the past week:**

| | Rarely or none of the time | Some or a little of the time | Occasionally | All of the time |
|---|---|---|---|---|
| 1. I was bothered by things that usually don't bother me | 0 | 1 | 2 | 3 |
| 2. I had trouble keeping my mind on what I was doing | 0 | 1 | 2 | 3 |
| 3. I felt depressed | 0 | 1 | 2 | 3 |
| 4. I felt that everything I did was an effort | 0 | 1 | 2 | 3 |
| 5. I felt hopeful about the future | 0 | 1 | 2 | 3 |
| 6. I felt fearful | 0 | 1 | 2 | 3 |
| 7. My sleep was restless | 0 | 1 | 2 | 3 |
| 8. I was happy | 0 | 1 | 2 | 3 |
| 9. I felt lonely | 0 | 1 | 2 | 3 |
| 10. I could not "get going" | 0 | 1 | 2 | 3 |

**Religious Orientation Scale**

Below is a list of issues concerning religion. Please read all statements very carefully and respond to all of them on the basis of your own true beliefs, without consulting any other persons. Do this by reading each statement and then write, in the space provided at its left, only one of the following numbers: 1, 2, 3, 4, 5, 6.

| | |
|---|---|
| 1= strongly agree | 4=disagree |
| 2=moderately agree | 5=moderately disagree |
| 3=agree | 6=strongly disagree |

— My identity is determined more by my personal or professional situation than by my relationship with God.

— I feel there are many more important things in life than religion.

— I think a person can be happy and enjoy life without believing in God.

— I think there is no life after death.

— I believe that men working and thinking together can build a just society without any supernatural help.

— I think a person should follow his own conscience –no praying- in deciding right and wrong.

— As science advances, religion will fade out in importance and eventually no religion will be needed.

— Children should be brought up religiously.

— One should seek God's guidance when making every important decision.

— The Koran was good for people of olden times but is really not applicable to modern life.

## Personal Meaning Index

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This questionnaire contains a number of statements related to opinions and feeling about yourself and life in general. Read each statement careful, and then indicate the extent to which you agree or disagree by circling one of the alternative categories provided. For example, if you strongly agree, circle SA following the statement. If you moderately disagree, circle MD. If you are undecided, circle U. Try to use the undecided category sparingly.

| **SA** | **A** | **MA** | **U** | **MD** | **D** | **SD** |
|---|---|---|---|---|---|---|
| Strongly Agree | Agree | Moderately Agree | Undecided | Moderately Disagree | Disagree | Strongly Disagree |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. My past achievements have given my life meaning and purpose. | SA | A | MA | U | MD | D | SD |
| 2. In my life I have very clear goals and aims. | SA | A | MA | U | MD | D | SD |
| 3. I have discovered a satisfying life purpose. | SA | A | MA | U | MD | D | SD |
| 4. The meaning of life is evident in the world around us | SA | A | MA | U | MD | D | SD |
| 5. I have been aware of an all powerful and consuming purpose towards which my life has been directed. | SA | A | MA | U | MD | D | SD |
| 6. I have a philosophy of life that gives my existence significance. | SA | A | MA | U | MD | D | SD |
| 7. Basically, I am living the kind of life I want to live | SA | A | MA | U | MD | D | SD |
| 8. I know where my life is going in the future | SA | A | MA | U | MD | D | SD |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9. In thinking of my life, I see a reason for my being here. | SA | A | MA | U | MD | D | SD |
| 10. I have a framework that allows me to understand or make sense of my life. | SA | A | MA | U | MD | D | SD |
| 11. In achieving life's goals, I have felt completely fulfilled. | SA | A | MA | U | MD | D | SD |
| 12. I have a sense that parts of my life fit together into a unified pattern. | SA | A | MA | U | MD | D | SD |
| 13. I have a mission in life that gives me a sense of direction. | SA | A | MA | U | MD | D | SD |
| 14. I have a clear understanding of the ultimate meaning of life. | SA | A | MA | U | MD | D | SD |
| 15. My personal existence is orderly and coherent. | SA | A | MA | U | MD | D | SD |
| 16. My life is running over with exciting good things. | SA | A | MA | U | MD | D | SD |

## Short Form (SF-36) Health Survey Questionnaire

Instructions for completing the questionnaire: Please answer every question. Some questions may look like others, but each one is different. Please take the time to read and answer each question carefully by filling in the bubble that best represents your response.

1. In general, would you say your health is:

- ❑ Excellent
- ❑ Very good
- ❑ Good
- ❑ Fair
- ❑ Poor

2. Compared to one year ago, how would you rate your health in general now?

- ❑ Much better now than a year ago
- ❑ Somewhat better now than a year ago
- ❑ About the same as one year ago
- ❑ Somewhat worse now than one year ago
- ❑ Much worse now than one year ago

3. The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

a. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports.

- ❑ Yes, limited a lot.
- ❑ Yes, limited a little.
- ❑ No, not limited at all.

b. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf?

- ❑ Yes, limited a lot.
- ❑ Yes, limited a little.
- ❑ No, not limited at all.

c. Lifting or carrying groceries.

- ❑ Yes, limited a lot.
- ❑ Yes, limited a little.
- ❑ No, not limited at all.

d. Climbing several flights of stairs.

- ❑ Yes, limited a lot.
- ❑ Yes, limited a little.
- ❑ No, not limited at all.

e. Climbing one flight of stairs.

- ❑ Yes, limited a lot.
- ❑ Yes, limited a little.
- ❑ No, not limited at all.

f. Bending, kneeling or stooping.

- ❑ Yes, limited a lot.
- ❑ Yes, limited a little.
- ❑ No, not limited at all.

g. Walking more than one mile.

- ❑ Yes, limited a lot.
- ❑ Yes, limited a little.
- ❑ No, not limited at all.

h. Walking several blocks.

- ❑ Yes, limited a lot.
- ❑ Yes, limited a little.
- ❑ No, not limited at all.

i. Walking one block.

- ❑ Yes, limited a lot.
- ❑ Yes, limited a little.
- ❑ No, not limited at all.

j. Bathing or dressing yourself.

- ❑ Yes, limited a lot.
- ❑ Yes, limited a little.
- ❑ No, not limited at all.

4. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

a. Cut down the amount of time you spent on work or other activities?
☐ Yes ☐ No

b. Accomplished less than you would like?
☐ Yes ☐ No

c. Were limited in the kind of work or other activities
☐ Yes ☐ No

d. Had difficulty performing the work or other activities (for example, it took extra time)
☐ Yes ☐ No

5. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

a. Cut down the amount of time you spent on work or other activities?
☐ Yes ☐ No
b. Accomplished less than you would like
☐ Yes ☐ No
c. Didn't do work or other activities as carefully as usual
☐ Yes ☐ No

6. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?

❑ Not at all
❑ Slightly
❑ Moderately
❑ Quite a bit
❑ Extremely

7. How much bodily pain have you had during the past 4 weeks?

❑ Not at all
❑ Slightly
❑ Moderately

- ❑ Quite a bit
- ❑ Extremely

8. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

- ❑ Not at all
- ❑ Slightly
- ❑ Moderately
- ❑ Quite a bit
- ❑ Extremely

9. These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks.

a. did you feel full of pep?

- ❑ All of the time
- ❑ Most of the time
- ❑ A good bit of the time
- ❑ Some of the time
- ❑ A little of the time
- ❑ None of the time

b. have you been a very nervous person?

- ❑ All of the time
- ❑ Most of the time
- ❑ A good bit of the time
- ❑ Some of the time
- ❑ A little of the time
- ❑ None of the time

c. have you felt so down in the dumps nothing could cheer you up?

- ❑ All of the time
- ❑ Most of the time
- ❑ A good bit of the time
- ❑ Some of the time
- ❑ A little of the time
- ❑ None of the time

d. have you felt calm and peaceful?

- ❑ All of the time
- ❑ Most of the time
- ❑ A good bit of the time
- ❑ Some of the time
- ❑ A little of the time
- ❑ None of the time

e. did you have a lot of energy?

- ❑ All of the time
- ❑ Most of the time
- ❑ A good bit of the time
- ❑ Some of the time
- ❑ A little of the time
- ❑ None of the time

f. have you felt downhearted and blue?

- ❑ All of the time
- ❑ Most of the time
- ❑ A good bit of the time
- ❑ Some of the time
- ❑ A little of the time
- ❑ None of the time

g. did you feel worn out?

- ❑ All of the time
- ❑ Most of the time
- ❑ A good bit of the time
- ❑ Some of the time
- ❑ A little of the time
- ❑ None of the time

h. have you been a happy person?

- ❑ All of the time
- ❑ Most of the time
- ❑ A good bit of the time
- ❑ Some of the time
- ❑ A little of the time
- ❑ None of the time

i. did you feel tired?

- ❑ All of the time
- ❑ Most of the time
- ❑ A good bit of the time
- ❑ Some of the time
- ❑ A little of the time
- ❑ None of the time

10. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)?

- ❑ All of the time
- ❑ Most of the time
- ❑ Some of the time
- ❑ A little of the time
- ❑ None of the time

11. How TRUE or FALSE is each of the following statements for you?

a. I seem to get sick a little easier than other people

- ❑ Definitely true
- ❑ Mostly true
- ❑ Don't know
- ❑ Mostly false
- ❑ Definitely false

b. I am as healthy as anybody I know

- ❑ Definitely true
- ❑ Mostly true
- ❑ Don't know
- ❑ Mostly false
- ❑ Definitely false

c. I expect my health to get worse

- ❑ Definitely true
- ❑ Mostly true
- ❑ Don't know
- ❑ Mostly false
- ❑ Definitely false

d. My health is excellent

- ❑ Definitely true
- ❑ Mostly true
- ❑ Don't know
- ❑ Mostly false
- ❑ Definitely false

## IMPACT OF EVENT SCALE-REVISED

***Instructions***: The following is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you *during the past 7 days* with respect to the disaster. How much were you distressed or bothered by these difficulties?

| | Not at all | A little bit | Moderately | Quite a bit | Extremely |
|---|---|---|---|---|---|
| 1. Any reminder brought back feelings about it. | 0 | 1 | 2 | 3 | 4 |
| 2. I had trouble staying asleep. | 0 | 1 | 2 | 3 | 4 |
| 3. Other things kept making me think about it. | 0 | 1 | 2 | 3 | 4 |
| 4. I felt irritable and angry | 0 | 1 | 2 | 3 | 4 |
| 5. I avoided letting myself get upset when I thought about it or was reminded of it. | 0 | 1 | 2 | 3 | 4 |
| 6. I thought about it when I didn't mean to. | 0 | 1 | 2 | 3 | 4 |
| 7. I felt as if it hadn't happened or wasn't real. | 0 | 1 | 2 | 3 | 4 |
| 8. I stayed away from reminders about it. | 0 | 1 | 2 | 3 | 4 |
| 9. Pictures about it popped into my mind | 0 | 1 | 2 | 3 | 4 |
| 10. I was jumpy and easily startled | 0 | 1 | 2 | 3 | 4 |
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 11. I tried not to think about it. | 0 | 1 | 2 | 3 | 4 |
| 12. I was aware that I still had a lot of feelings about it, but I didn't deal with them. | 0 | 1 | 2 | 3 | 4 |
| 13. My feelings about it were kind of numb | 0 | 1 | 2 | 3 | 4 |
| 14. I found myself acting or feeling like I was back at that time | 0 | 1 | 2 | 3 | 4 |
| 15. I had trouble falling asleep. | 0 | 1 | 2 | 3 | 4 |
| 16. I had waves of strong feelings about it. | 0 | 1 | 2 | 3 | 4 |
| 17. I tried to remove it from my memory | 0 | 1 | 2 | 3 | 4 |
| 18. I had trouble concentrating. | 0 | 1 | 2 | 3 | 4 |
| 19. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart | 0 | 1 | 2 | 3 | 4 |
| 20. I had dreams about it. | 0 | 1 | 2 | 3 | 4 |
| 21. I felt watchful and on guard. | 0 | 1 | 2 | 3 | 4 |
| 22. I tried not to talk about it. | 0 | 1 | 2 | 3 | 4 |

## Hospital Anxiety and Depression Scale (HADS)

**Instructions:** Doctors are aware that emotions play an important part in most illnesses. If your doctor knows about these feelings he or she will be able to help you more. This questionnaire is designed to help your doctor know how you feel. Read each item and place a firm tick in the box opposite the reply which comes closest to how you have been feeling in the past week. Don't take too long over your replies: your immediate reaction to each item will probably be more accurate than a long thought out response.

---

**1. I feel tense or wound up:**

Most of the time
A lot of the time
Time to time, occasionally
Not at all

**2. I still enjoy the things I used to enjoy**

Definitely as much
Not quite so much
Only a little
Not at all

**3. I get a sort of frightened feeling like something awful is about to happen**

Very definitely and quite badly
Yes, but not too badly
A little, but it doesn't worry me
Not at all

**4. I feel as if I am slowed down:**

Nearly all of the time
Very often
Sometimes
Not at all

**5. I get a sort of frightened feeling like "butterflies in the stomach":**

Not at all
Occasionally
Quite often
Very often

**6. I have lost interest in my appearance**:

Definitely
I don't take as much care as I should
I may not take quite as much care
I take just as much care as ever

**7. I can laugh and see the funny side of things**

As much as I always could
A lot of the time
From time to time but not too often

**8. Worrying thoughts go through my minds**

A great deal of the time
A lot of the time
From time to time but not too often
Only occasionally

**9. I feel cheerful:**

Not at all
Not often
Sometimes
Most of the times

**10. I can sit at ease and feel relaxed:**

Definitely
Usually
Not often
Not at all

**11. I feel restless as if I have to be on the move**

Very much indeed
Quite a lot
Not very much
Not at all

**12. I look forward with enjoyment to things**

A much as I ever did
Rather less than I used to
Definitely less than I used to
Hardly at all

**13. I get sudden feelings of panic**

Very often indeed
Quite often
Not very often
Not at all

**14. I can enjoy a good book or radio or TV programme:**

Often
Sometimes
Not often
Very seldom

**Medical Outcomes Study (MOS) Social Support Survey**

People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you if you need it? Circle one number on each line.

| | None of the time | A little of the time | Some of the time | Most of the time | All of the time |
|---|---|---|---|---|---|
| 1. Someone you can count on to listen to you when you need to talk | 1 | 2 | 3 | 4 | 5 |
| 2. Someone to give you information to help you understand a situation | 1 | 2 | 3 | 4 | 5 |
| 3. Someone to give you good advice about a crisis | 1 | 2 | 3 | 4 | 5 |
| 4. Someone to confide in or talk to about yourself or your problems | 1 | 2 | 3 | 4 | 5 |
| 5. Someone whose advice you really want | 1 | 2 | 3 | 4 | 5 |
| 6. Someone to share your most private worries and fears with | 1 | 2 | 3 | 4 | 5 |
| 7. Someone to turn to for suggestions about how to deal with a personal problem | 1 | 2 | 3 | 4 | 5 |
| 8. Someone who understands your problems | 1 | 2 | 3 | 4 | 5 |
| 9. Someone to help you if you were confined to bed | 1 | 2 | 3 | 4 | 5 |
| 10. Someone to take you to the doctor if you needed it | 1 | 2 | 3 | 4 | 5 |
| 11. Someone to prepare your meals if you were unable to do it yourself | 1 | 2 | 3 | 4 | 5 |
| 12. Someone to help with daily chores if you were sick | 1 | 2 | 3 | 4 | 5 |

| | None of the time | A little of the time | Some of the time | Most of the time | All of the time |
|---|---|---|---|---|---|
| 13. Someone who shows you love and affection | 1 | 2 | 3 | 4 | 5 |
| 14. Someone to love you and make you feel wanted | 1 | 2 | 3 | 4 | 5 |
| 15. Someone who hugs you | 1 | 2 | 3 | 4 | 5 |
| 16. Someone to have a good time with | 1 | 2 | 3 | 4 | 5 |
| 17. Someone to get together with for relaxation | 1 | 2 | 3 | 4 | 5 |
| 18. Someone to do something enjoyable with | 1 | 2 | 3 | 4 | 5 |
| 19. Someone to do things with to help you get your mind off things | 1 | 2 | 3 | 4 | 5 |

**Brief COPE Scale**

These items deal with ways you've been coping with the stress in your life since you found out you were going to have to have this operation. There are many ways to try to deal with problems. These items ask what you've been doing to cope with this one. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says, how much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. **Make your answers as true FOR YOU as you can.**

| | **I haven't been doing this at all** | **I've been doing this a little bit** | **I've been doing this a medium amount** | **I've been doing this a lot** |
|---|---|---|---|---|
| 1. I've been turning to work or other activities to take my mind off things | 1 | 2 | 3 | 4 |
| 2. I've been concentrating my efforts on doing something about the situation I'm in | 1 | 2 | 3 | 4 |
| 3. I've been saying to myself "this isn't real." | 1 | 2 | 3 | 4 |
| 4. I've been getting emotional support from others | 1 | 2 | 3 | 4 |
| 5. I've been giving up trying to deal with it | 1 | 2 | 3 | 4 |
| 6. I've been taking action to try to make the situation better | 1 | 2 | 3 | 4 |
| 7. I've been refusing to believe that it has happened | 1 | 2 | 3 | 4 |
| 8. I've been saying things to let my unpleasant feelings escape | 1 | 2 | 3 | 4 |

| | | | | |
|---|---|---|---|---|
| 9. I've been getting help and advice from other people | 1 | 2 | 3 | 4 |
| 10. I've been trying to see it in a different light, to make it seem more positive | 1 | 2 | 3 | 4 |
| 11. I've been criticizing myself | 1 | 2 | 3 | 4 |
| 12. I've been trying to come up with a strategy about what to do | 1 | 2 | 3 | 4 |
| 13. I've been getting comfort and understanding from someone | 1 | 2 | 3 | 4 |
| 14. I've been giving up the attempt to cope | 1 | 2 | 3 | 4 |
| 15. I've been looking for something good in what is happening | 1 | 2 | 3 | 4 |
| 16. I've been making jokes about it | 1 | 2 | 3 | 4 |
| 17. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping | 1 | 2 | 3 | 4 |
| 18. I've been accepting the reality of the fact that it has happened | 1 | 2 | 3 | 4 |
| 19. I've been expressing my negative feelings | 1 | 2 | 3 | 4 |
| 20.I've been trying to find comfort in my religion or spiritual beliefs | 1 | 2 | 3 | 4 |
| 21. I've been trying to get advice or help from other people about what to do | 1 | 2 | 3 | 4 |
| 22. I've been learning to live with it | 1 | 2 | 3 | 4 |
| 23. I've been thinking hard about what steps to take | 1 | 2 | 3 | 4 |

| | | | | |
|---|---|---|---|---|
| 24. I've been blaming myself for things that happened | 1 | 2 | 3 | 4 |
| 25. I've been praying or meditating | 1 | 2 | 3 | 4 |
| 26. I've been making fun of the situation | 1 | 2 | 3 | 4 |

# Appendix B: Questionnaires Translated into Farsi

## آزمون مقابله مذهبی

**دستورالعمل:**

عبارتهای زیر مربوط می شود به اینکه شما در مواجهه با رویدادهای استرس زا زندگی تا چه اندازه از موارد زیر استفاده می کنید. **هر عبارت را با دقت بخوانید و مشخص سازید وقتی یک موقعیت استرس زا تجربه کردید، موارد زیر تا چه اندازه در مورد شما کاربرد داشت** و یا از آنها برای کاهش استرس خود استفاده کردید. لطفاً به همه عبارتها پاسخ داده، گزینه مورد نظر را علامت بزنید.

| | اصلاً | کم | متوسط | زیاد | خیلی زیاد |
|---|---|---|---|---|---|
| ۱. وضعیت پیش آمده را ناشی از خواست و مشیت خداوند دانستم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۲. آن را یک نوع آزمایش الهی دانستم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۳. سختیهای که متحمل شدم باعث شد به خداوند بیشتر نزدیک شوم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۴. مشکلات و مشقات را عاملی برای تقویت ایمان و تعالی روح خود دانستم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۵. از اینکه به این وضعیت دچار شدم، نسبت به خداوند عصبانی شدم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۶. برای برطرف شدن مشکل هر کاری توانستم انجام دادم سپس آن را به خدا واگذار کردم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۷. نماز به من کمک کرد آرامش پیدا کنم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۸. خواندن قرآن به من کمک کرد آرامش پیدا کردم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۹. با ذکر گفتن آرامش پیدا کردم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۱۰. زیارت (ائمه و امامزاده) به من کمک کرد احساس خوبی داشته باشم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۱۱. خواندن دعاهای خاصی به من کمک کرد احساس خوبی داشته باشم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۱۲. سعی کردم بدون اتکا به خدا بر مشکلاتم فائق آیم | ۰ | ۱ | ۲ | ۳ | ٤ |

| | اصلاً | کم | متوسط | زیاد | خیلی زیاد |
|---|---|---|---|---|---|
| ۱۳. از انجام فرائض مذهبی خودداری کردم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۱۴. برای حل مشکل تلاش زیادی نکردم، فکر کردم خداوند آن را درست می کند | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۱۵. تمام تلاشم را برای حل مسئله انجام دادم و بقیه آن را به خدا واگذار کرد | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۱۶. هر کاری می توانستم انجام دادم، سپس از خداوند خواستم خودش آن را درست کند | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۱۷. احساس کردم خداوند من را به حال خود گذاشته (توجه ای به من ندارد) و من را فراموش کرده است | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۱۸. توسل به معصومین به من کمک کرد با مشکل کنار بیایم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۱۹ . سختیها را عاملی برای پاک شدن و تصفیه گناهان خود دانستم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۲۰. جهت مقابله با مشکل سعی زیادی نکردم، انتظار داشتم خداوند مشکل من را حل کند. | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۲۱. فهمیدم که خداوند نمی تواند همه دعاهای من را اجابت کند | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۲۲. تحمل سختیها برایم ممکن شد چون خواست خداوند را در آن دیدم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۲۳. در مورد آنچه باید انجام می دادم بدون کمک خواستن از خدا تصمیم گرفتم | ۰ | ۱ | ۲ | ۳ | ٤ |
| ۲۴. مقدر شده بود که من این وضعیت را داشته باشم، بنابر این سعی نکردم آن را تغییر بدهم | ۰ | ۱ | ۲ | ۳ | ٤ |

| | | | | | |
|---|---|---|---|---|---|
| ۲۵. از لطف و رحمت خداوند مایوس شدم | ۰ | ۱ | ۲ | ۳ | ٤ |

**با تشکر فراوان از همکاری شما**

## پرسشنامه سلامت عمومی

ما می خواهیم بدانیم وضعیت سلامتی شما در طول چند هفته گذشته چگونه بوده است. لطفا سؤالات زیر و هر یک از پاسخ های ممکن را بخوانید و سپس زیر گزینه ای که بهتر در مورد شما کاربرد دارد خط بکشید. لطفاً به **همه** سؤالات پاسخ دهید.

آیا شما اخیرا:

**۱. قادر بوده اید بر روی کاری که انجام می دهید تمرکز کنید؟**

بهتر از معمول　　مثل همیشه　　کمتر از معمول　　خیلی کمتر از معمول

**۲. به خاطر داشتن نگرانی بی خواب شده باشید؟**

به هیچ وجه　　در حد معمول　　نسبتاً بیشتر از معمول　　خیلی بیشتر از معمول

**۳. احساس کردید که نقش مفیدی در کارها دارید؟**

بیشتر از معمول　　مثل همیشه　　کمتر از معمول　　خیلی کمتر از معمول

**۴. احساس کردید که توانایی تصمیم گیری در مورد مسائل را دارید؟**

بهتر از معمول　　مثل همیشه　　کمتر از معمول　　خیلی کمتر از معمول

**۵. احساس کردید که دائماً تحت فشار و استرس قرار دارید؟**

به هیچ وجه　　در حد معمول　　نسبتاً بیشتر از معمول　　خیلی بیشتر از معمول

**۶. احساس کردید که نمی توانید بر مشکلاتتان فائق آئید؟**

به هیچ وجه　　در حد معمول　　نسبتاً بیشتر از معمول　　خیلی بیشتر از معمول

**۷. قادر بوده اید از فعالیت های روزانه معمولتان لذت ببرید؟**

بیشتر از معمول　　مثل همیشه　　کمتر از معمول　　خیلی کمتر از معمول

**۸. قادر بوده اید با مشکلاتتان مواجهه شوید؟**

بیشتر از معمول　　مثل همیشه　　کمتر از معمول　　خیلی کمتر از معمول

**۹. احساس افسردگی یا ناشادی داشته اید؟**

به هیچ وجه　　در حد معمول　　نسبتاً بیشتر از معمول　　خیلی بیشتر از معمول

**۱۰. اعتماد به نفس تان را از دست داده اید؟**

به هیچ وجه　　در حد معمول　　نسبتاً بیشتر از معمول　　خیلی بیشتر از معمول

**۱۱. خودتان را به عنوان یک فرد بی ارزش تلقی کرده اید؟**

به هیچ وجه　　در حد معمول　　نسبتاً بیشتر از معمول　　خیلی بیشتر از معمول

**۱۲. وقتی همه چیز را در نظر گرفتید؛ احساس رضایت و خرسندی معقولی داشتید؟**

بیشتر از معمول　　مثل همیشه　　کمتر از معمول　　خیلی کمتر از معمول

**با تشکر فراوان از همکاری شما**

**مقیاس نگرش زندگی**

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این پرسشنامه در بر دارنده تعدادی از عبارتهای مربوط به دیدگاهها و احساسات شما راجع به خودتان و زندگی بطور کلی است. لطفا هر عبارت را با دقت خوانده، سپس با کشیدن دایره ای به دور یکی ازگزینه ها، درجه ای که شما با آن عبارت موافق یا مخالف هستید را مشخص سازید. حتی الامکان سعی کنید گزینهٔ"نمی توانم تصمیم بگیرم" را انتخاب نکنید.

لطفا قبل از تکمیل مقیاس موارد زیر را تکمیل بفرمایید.

سن ..... جنسیت: مذکر آ مونث آ میزان تحصیلات ..... وضعیت تاهل .....

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۱- موفقیتهای گذشته به زندگی من معنا و هدف داده است.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۲- من در زندگی اهداف بسیار روشنی دارم.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۳- فرصت به دست آمده برای اداره و جهت بخشی زندگی ام را غنیمت می شمرم.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۴- بنظر می رسد اهداف عمده زندگی ام را تغییر دهم.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۵- هدف رضایت بخشی برای زندگی ام یافته ام.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۶- احساس می کنم عنصر توصیف ناپذیری در زندگی ام کم است.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۷- در دنیای پیرامون ما معنای زندگی کاملا" مشهود است.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۸- فکر می کنم بطور کلی در مقایسه با اطرافیانم خیلی کمتر نگران مرگ باشم.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۹- احساس می کنم زندگی ام فاقد معنا و هدف حقیقی است و نیاز دارم آن را بیابم.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۱۰- چیزهای جدید و متفاوت برای من جذابیت دارد.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۱- موفقیتهای من در زندگی تا حد زیادی مدیون تلاشهای خودم می باشد.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۲- از هدفی بزرگ در زندگی ام، هدفی که زندگی ام به سوی آن جهت داده می شود، همواره آگاه بوده ام.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۳- من فعالیتها و علائق جدیدی را تجربه می کنم. سپس این فعالیتها پس از مدت کوتاهی جذابیت خودشان را از دست می دهند.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۴- بیرون آمدن از روزمرگی زندگی برایم لذت بخش است.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۵- مرگ تاثیر چندانی در زندگی من ندارد.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۶- یک فلسفه زندگی دارم که به وجودم معنا می دهد.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۷- خودم تعیین کننده رویدادهای زندگی ام هستم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۸- در کل آن گونه زندگی می کنم که خودم می خواهم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۹- با توجه به آزادی در انتخاب، معتقدم در تمامی انتخابهای زندگی کاملا آزادم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۲۰- احساس می کنم مقدر شده کاری مهم انجام دهم، اما ماهیت آن کار بر من معلوم نیست.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۲۱- بی قرار هستم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۲۲- اگر چه مرگ در انتظار من است، من در مورد آن نگران نیستم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۲۳- برای من امکان دارد آنگونه که می خواهم زندگی کنم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۲۴- نیاز به خطرکردن و"تجربه دنیای جدید " را در خود احساس می کنم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۲۵- نه از مرگ می ترسم و نه از آن استقبال می کنم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۲۶- من می دانم زندگی ام درآینده به کدام سمت سیر خواهد کرد.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۲۷- وقتی به زندگی خود فکر می کنم. دلیلی برای بودنم (وجودم) در دنیا می بینم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۲۸- چون مرگ یک جنبه طبیعی زندگی است، پس معقول نیست در مورد آن نگران باشیم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۲۹- اصول و چارچوبی دارم که زندگی ام را به من می شناساند و به آن معنی و مفهوم می بخشد..

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۳۰- زندگی ام در دستان من است و من آن را کنترل می کنم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۳۱- در رسیدن به اهداف زندگی، کاملا احساس رضایت کرده ام.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۳۲- برخی افراد خیلی از مرگ می ترسند، اما من اینگونه نیستم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۳۳- رویای یافتن جایگاه و هویتی جدید در سر دارم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۳۴- چالش جدید در زندگی ام اکنون برای من جذابیت دارد.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۳۵- احساس می کنم که اجزاء زندگی ام در یک قالب واحد گنجانده می شود.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۳۶- امیدوارم حادثه هیجان انگیزی در آینده برایم رخ دهد.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۳۷- در زندگی وظیفه و رسالتی دارم که رهنمای من است.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۳۸- درک واضح و روشنی از معنی غائی زندگی دارم.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۳۹- در موارد و مسایل مهم زندگی، من خود تصمیم می گیرم.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

٤٠-بعضی وقتها می گویم "گور پدر زندگی" و با این کار احساس می کنم نسبت به زندگی و مسایل آن بی اعتنا شده ام.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۴۱- نسبت به گذشته اشتیاق بیشتری برای بهره مندی از مواهب زندگی دارم.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۴۲- زندگی یکنواخت و ملال انگیز در نظرم جلوه می کند.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۴۳- مصمم هستم در آینده به اهداف جدیدی دست یابم.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۴۴- فکر مرگ بندرت وارد ذهن من می شود.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۴۵- مسئولیت شخصی برای انتخابهایی که در زندگی داشته ام را می پذیرم.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۴۶- وجود فردی من منسجم و یکپارچه است.

کاملا موافقم موافقم تا حدودی موافقم نمی توانم تصمیم بگیرم تا حدودی مخالفم مخالفم کاملا مخالفم

۴۷- مرگ را به عنوان یک تجربه وجودی دیگر می پذیرم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۴۸- زندگی ام با رویدادهای خوب هیجان انگیزی پیش می رود .

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

## نیمرخ منابع معنا

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این مقیاس شامل تعدادی عبارت می باشد که منابع معنا در زندگی افراد را ارزیابی می کند. لطفا هر عبارت را با دقت بخوانید و تصمیم بگیرید هر کدام از موارد زیر چقدر **معنا دار** در زندگی شما در **حال حاضر** است. یکی از شماره های زیربین ۱ تا ۷ که موقعیت شخصی شما را بهتر توصیف می کند را انتخاب کرده و در جلوی عبارت قرار دهید.

لطفا صادقانه پاسخ داده، مطمین باشید که پاسخ شما در محل مناسب است و تمام جاهای خالی پر شده است.

| ۱ | ۲ | ۳ | ٤ | ٥ | ٦ | ۷ |
|---|---|---|---|---|---|---|
| به هیچ وجه معنا دار نیست | | | تا حدودی معنا دار است | | | کاملا معنا دار است |

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------۱. مشارکت در فعالیتهای اوقات فراغت

------۲. برآوردن نیازهای اساسی و روزمره .

------۳. مشارکت در فعالیتهای خلاقانه

------۴. سرگرم به روابط شخصی با خانواده و یا دوستان

------۵. مورد قدردانی قرار گرفتن برای موفقیتهای فردی

------۶. تجربه رشد و پیشرفت شخصی

------۷. شرکت در فعالیتهای مذهبی

------۸. علاقه به فعالیتهای اجتماعی

------۹. خدمت کردن و یاری رساندن به دیگران

------۱۰. حفاظت و حراست از ارزش ها و آرمان های انسانی

------۱۱. پاسداری از فرهنگ و سنن

------۱۲. برای آیندگان به میراث گذاشتن

------۱۳. احساس تامین مالی کردن

------۱۴. علاقه به حقوق بشر (توجه به مسایل انسانی)

------۱۵. مشارکت در فعالیتهای " لذت جویانه"

------۱۶. مال اندوزی جهت لذت بردن از زندگی

------۱۷. رابطه با طبیعت

## نمایه نگرش زندگی

در زیر ۱۴ عبارت وجود دارد که ممکن است با آن موافق یا مخالف باشید. لطفا با استفاده از مقیاس ۷-۱ درجه ای زیر و با قرار دادن شماره مورد نظر خود در جلوی هر عبارت به عبارتها پاسخ دهید. لطفا با صداقت پاسخ دهید.

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۷- کاملا موافقم
۶- تا حدودی موافقم
۵- کمی موافقم
۴- نه موافقم نه مخالف
۳- کمی مخالفم
۲- تا حدودی مخالفم
۱- کاملا مخالفم

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— احساس می کنم یک معنای با اهمیتی برای پیش بردن زندگی ام را یافته ام.

— آنچه در زندگی ام برای من مهم است را پذیرفته ام.

— یک نظام فکری و چارچوبی دارم که از طریق آن وجودم را به درستی درک می کنم.

— در مورد آنچه می خواهم با زندگی ام انجام دهم، اندیشه روشنی دارم.

— چیزهای وجود دارد که تمام توانم را حاضرم به آن اختصاص دهم.

— یک فلسفه زندگی دارم که واقعا به زندگی ام معنا می دهد.

— اهدافی دارم که اگر بتوانم به آنها نائل شوم موجب رضامندی وخرسندی خیلی زیادی خواهد شد.

— نمی دانم واقعا با زندگی ام چه کار می خواهم انجام یده ام.

— واقعا هدفی برای زندگی حتی برای خودم ندارم.

— نیاز یه یافتن چیزی دارم که واقعا بتوانم به آن متعهد باشم.

— وقتی سعی می کنم زندگی ام را درک کنم کاملا گیج می شوم.

— هیچ چیزی وجود ندارد که کاملا بخواهم آن را انجام دهم.

— به چیزی در زندگی ام عمیقا معتقد نیستم.

— بنظر می رسد دیگران در مورد آنچه می خواهند با زندگی خود انجام دهند بیش از من ایده داشته باشند.

## پرسشنامه نگرش مذهبی

این پرسشنامه به باورها و دیدگاه های شما در مورد زندگی مربوط می شود. لطفا به همه عبارتها با صداقت پاسخ داده، بر اساس مقیاس پیوستاری صفر تا ده شماره ای که بهتر دیدگاه شما را منعکس می کند علامت بزنید. برای مثال اگر موردی از موارد زیر برای شما مهم است به دور شماره ده دایره ای بکشید و اگر اصلا مهم نیست صفر را علامت بزنید.

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۱. مذهب تا چه اندازه در زندگی روزانه شما مهم است.

آ اصلا مهم نیست  آ کمی مهم است  آ تا حدی مهم است  آ مهم است  آ بسیار مهم است

۲.. عمل به باورهای مذهبی در زندگی روزانه چقدر برای شما مهم است. لطفا به دور شماره ای که نظر شما را بهتر توصیف می کند دایره ای یکشید.

اصلا مهم نیست ۰ ۱ ۲ ۳ ۴ ۵ ۶ ۷ ۸ ۹ ۱۰ بسیار مهم است

۳. برخی افراد قویا نسبت به دیدگاهایشان پایبند هستند و برخی اینگونه نیستند، شما چقدر به دیدگاه ههای مذهبی/معنوی زندگی خود پایبند هستید. لطفا به دور شماره ای که نظر شما را بهتر توصیف می کند دایره ای یکشید.

خیلی کم ۰ ۱ ۲ ۳ ۴ ۵ ۶ ۷ ۸ ۹ ۱۰ خیلی زیاد

۴. آیا شما به یک قدرت یا نیروی معنوی به غیر از خودتان اعتقاد دارید که بتواند بر آنچه در زندگی روزانه شما اتفاق می افتد اثرگذار باشد. لطفا به دور شماره ای که نظر شما را بهتر توصیف می کند دایره ای یکشید.

بی تاثیر ۰ ۱ ۲ ۳ ۴ ۵ ۶ ۷ ۸ ۹ ۱۰ تاثیر نیرومند

۵. آیا شما به یک قدرت یا نیروی معنوی به غیر از خودتان اعتقاد دارید که شما را قادر سازد شخصا با حوادث، رویدادها و مشکلات زندگی اتان مقابله کنید. لطفا به دور شماره ای که نظر شما را بهتر توصیف می کند دایره ای یکشید.

خیلی کم ۰ ۱ ۲ ۳ ۴ ۵ ۶ ۷ ۸ ۹ ۱۰ خیلی زیاد

۶. آیا شما به یک قدرت یا نیروی معنوی به غیر از خودتان اعتقاد دارید که امورات دنیا را تحت تاثیر قرار دهد، برای مثال جنگها. لطفا به دور شماره ای که نظر شما را بهتر توصیف می کند دایره ای یکشید.

بی تاثیر ۰ ۱ ۲ ۳ ۴ ۵ ۶ ۷ ۸ ۹ ۱۰ تاثیر نیرومند

## پرسشنامه جهت یابی مذهبی

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در زیر فهرستی از موضوعات مربوط به مذهب آمده است. لطفا تمام عبارتها را با دقت بخوانید و به تمام آنها بر اساس باور حقیقی خودتان و بدون مشورت با دیگران پاسخ دهید. هر عبارت را خوانده، سپس فقط یکی ازگزینه های زیر ( شماره ها) را در جای مورد نظر در جلوی هر عبارت بنویسید.

۱= کاملا موافقم ۲= موافقم ۳= تا حدودی موافقم ۴= تا حدودی مخالفم ۵ = مخالفم ۶= کاملا مخالفم

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— هویت من بیشتر با موقعیت حرفه ای و شخصی من تعیین می شود تا رابطه ام با خدا.

— احساس می کنم خیلی مسائل مهمتر از مذهب در زندگی وجود دارد.

— فکر می کنم انسان می تواند بدون اعتقاد به خدا خوشبخت باشد و از زندگی لذت ببرد.

— فکر می کنم زندگی بعد از مرگ وجود نداشته باشد.

— معتقد هستم انسانها با فکر کردن و کار کردن با یکدیگر می توانند جامعه ای مبتنی بر عدالت بسازند بدون اینکه نیازی به کمک ماورائ طبیعی داشته باشند.

— با پیشرفت علم, از اهمیت مذهب کاسته می شود و نهایتا بشر به مذهب نیازی نخواهد داشت.

— بچه ها باید مطابق با تعالیم مذهبی تربیت شوند.

— باورهای مذهبی تمام مسائل زندگی من را تحت تاثیر قرار می دهد.

— انسان وقتی تصمیم مهمی می گیرد باید راهنمائی و هدایت خداوند را جستجو نماید.

— قرآن برای مردم زمانهای پیشین خوب بود اما برای زندگی مدرن امروزی کاربردی ندارد.

## مقیاس معنای زندگی

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این پرسشنامه در بر دارنده تعدادی از عبارتهای مربوط به دیدگاهها و احساسات شما راجع به خودتان و زندگی بطور کلی است. لطفا هر عبارت را با دقت خوانده، سپس با کشیدن دایره ای به دور یکی ازگزینه ها، درجه ای که شما با آن عبارت موافق یا مخالف هستید را مشخص سازید. حتی الامکان سعی کنید گزینهٔ"نمی توانم تصمیم بگیرم" را انتخاب نکنید.

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۱- موفقیتهای گذشته به زندگی من معنا و هدف داده است.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۲- من در زندگی اهداف بسیار روشنی دارم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۳- هدف رضایت بخشی برای زندگی ام یافته ام.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۴- در دنیای پیرامون ما معنای زندگی کاملا" مشهود است.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۵- از هدفی بزرگ در زندگی ام، هدفی که زندگی ام به سوی آن جهت داده می شود، همواره آگاه بوده ام.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۶- یک فلسفه زندگی دارم که به وجودم معنا می دهد.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۷- در کل آن گونه زندگی می کنم که خودم می خواهم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۸- من می دانم زندگی ام درآینده به کدام سمت سیر خواهد کرد.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۹- وقتی به زندگی خود فکر می کنم. دلیلی برای بودنم (وجودم) در دنیا می بینم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۰- اصول و چارچوبی دارم که زندگی ام را به من می شناساند و به آن معنی و مفهوم می بخشد..

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۱- در رسیدن به اهداف زندگی، کاملا احساس رضایت کرده ام.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۲- احساس می کنم که اجزاء زندگی ام در یک قالب واحد گنجانده می شود.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۳- در زندگی وظیفه و رسالتی دارم که رهنمای من است.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۴- درک واضح و روشنی از معنی غائی زندگی دارم.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۵- وجود فردی من منسجم و یکپارچه است.

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

۱۶- زندگی ام با رویدادهای خوب هیجان انگیزی پیش می رود .

کاملا موافقم  موافقم  تا حدودی موافقم  نمی توانم تصمیم بگیرم  تا حدودی مخالفم  مخالفم  کاملا مخالفم

## پرسشنامه وضعیت سلامتی

سؤالات زیر به منظور پی بردن به نظر شما در مورد وضعیت سلامتی تان تدوین شده است؛ آنها مربوط می شوند به اینکه شما چه احساسی دارید و چگونه قادر هستید فعالیتهای معمولتان را انجام بدهید. چنانچه مطمئن نیستید به هر سؤال چگونه پاسخ دهید لطفاً بهترین پاسخی که می توانید را انتخاب کنید. در عین دقت؛ وقت زیادی را صرف پاسخ دادن به هر سؤال نکنید. اگر مشکلی دارید که در اینجا ذکر نشده لطفاً آن را ذکر کنید.

۱) بطور کلی؛ وضعیت سلامتی خودتان را چگونه می بینید؟

*(لطفاً یکی از موارد زیر را علامت بزنید)*

☐ عالی

☐ خیلی خوب

☐ خوب

☐ نسبتا خوب

☐ ضعیف

۲) در مقایسه با یک سال قبل؛ در حال حاضر وضعیت سلامتی خودتان را بطور کلی چگونه می بینید؟

*(لطفاً یکی از موارد زیر را علامت بزنید)*

☐ خیلی بهتر از یک سال قبل

☐ تا حدی بهتر از یک سال قبل

☐ فرقی نکرده است

☐ تا حدی بدتر از یک سال قبل

☐ خیلی بدتر از یک سال قبل

۳) عبارتهای زیر در مورد فعالیتهایی هستند که شما ممکن است در طول یک روز انجام بدهید. آیا وضعیت سلامتی تان باعث محدودیت در این فعالیتها می شود؟ اگر چنین است؛ چقدر؟

*(لطفا یک مورد در هر ردیف علامت بزنید)*

| | **بلی؛ خیلی محدود شده** | **بلی؛ کمی محدود شده** | **خیر؛ اصلاً محدود نشده** |
|---|---|---|---|
| الف) فعالیتهای شدید مانند دویدن؛ بلند کردن اشیاء سنگین؛ شرکت در ورزشهای شدید | ☐ | ☐ | ☐ |
| ب) فعالیتهای متوسط مانند حرکت دادن یک میز؛ کشیدن یک جارو برقی | ☐ | ☐ | ☐ |
| ج) بلند کردن یا حمل آنچه از سوپر مارکت خریده اید | ☐ | ☐ | ☐ |
| د) بالا رفتن از چند پله | ☐ | ☐ | ☐ |
| ذ) بالا رفتن از یک پله | ☐ | ☐ | ☐ |
| ر) خم شدن؛ زانو زدن | ☐ | ☐ | ☐ |
| ع) راه رفتن بیش از یک کیلومتر و نیم | ☐ | ☐ | ☐ |
| غ) راه رفتن به اندازه یک کیلومتر | ☐ | ☐ | ☐ |
| خ) راه رفتن به اندازه صد متر | ☐ | ☐ | ☐ |
| ه) حمام کردن یا لباس پوشیدن | ☐ | ☐ | ☐ |

۴) آیا در طول چهار هفته گذشته؛ هیچکدام از مشکلات زیر را در مورد کارتان یا سایر فعالیتهای روزانه معمول تان به خاطر وضعیت جسمانی خود داشته اید.

*(لطفاً به هر سؤال پاسخ بلی یا خیر بدهید)*

| | بلی | خیر |
|---|---|---|
| الف) کم کردن مقدار زمانی که صرف کار یا سایر فعالیتها می کرده اید. | ☐ | ☐ |
| ب) انجام دادن فعالیت کمتر از آنچه می خواستید. | ☐ | ☐ |
| ج) محدود شدن در نوع کار یا فعالیتهای دیگر. | ☐ | ☐ |
| د) در انجام کار یا فعالیتهای دیگر مشکل داشتید (برای مثال؛ انجام آن مستلزم تلاش زیادی بود). | ☐ | ☐ |

۵) در طول چهار هفته گذشته؛ آیا درارتباط با کار یا سایر فعالیتهای معمول خود هیچکدام از مشکلات زیر را به خاطر مشکلات عاطفی داشته اید (مانند احساس افسردگی یا اضطراب)؟

*(لطفاً به هر سؤال پاسخ بلی یا خیر بدهید)*

| | بلی | خیر |
|---|---|---|
| الف) کم کردن مقدار زمانی که صرف کار یا سایر فعالیتها می کرده اید. | ☐ | ☐ |
| ب) انجام دادن فعالیت کمتر از آنچه می خواستید. | ☐ | ☐ |
| ج) کار یا فعالیتهایتان را با دقتی که همیشه انجام می دادید انجام ندادید. | ☐ | ☐ |

۶) در طول چهار هفته گذشته؛ تا چه اندازه ای مشکلات جسمانی یا هیجانی شما در فعالیتهای اجتماعی اتان با خانواده؛ دوستان؛ همسایه ها؛ یا دیگران تاثیر منفی داشت؟

*(لطفاً به یک مورد پاسخ بدهید)*

☐ به هیچ وجه

☐ کمی

☐ تا حدی

☐ زیاد

☐ خیلی زیاد

۷) در طول چهار هفته گذشته چقدر درد بدنی داشته اید؟

*(لطفاً به یک مورد پاسخ بدهید)*

☐ هیچ

☐ خیلی خفیف

☐ خفیف

☐ متوسط

☐ شدید

☐ خیلی شدید

۸) در طول چهار هفته گذشته؛ چقدر درد تاثیر منفی بر روی کار معمولتان داشته است (شامل کار خانه و بیرون)؟

*(لطفاً به یک مورد پاسخ بدهید)*

☐ هیچ

☐ کمی

☐ تا حدی

☐ زیاد

☐ خیلی زیاد

۹) این سؤال ها در مورد این است که شما چه احساسی دارید و اینکه در طول ماه گذشته چه وضعیتی داشته اید.( لطفا به هر سوال یک پاسخ که مربوط به احساس شما است بدهید).

*(لطفا یک مورد در هر ردیف علامت بزنید)*

در طول ماه گذشته چه مدتی از زمان:

| | تمام مواقع | اکثر مواقع | بسیاری اوقات | گاهی اوقات | مواقع کمی | هیچوقت |
|---|---|---|---|---|---|---|
| الف) احساس کردید که پر از نشاط هستید؟ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| ب) یک فرد خیلی عصبی بوده اید؟ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| ج) احساس کرده اید خیلی غمگین هستید که هیچ چیزی نمی تواند شما را خوشحال کند؟ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| د) احساس آرامش کرده اید؟ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| ذ) انرژی زیادی داشتید؟ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| ر) احساس دل شکسته گی و افسردگی داشته اید؟ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| ح) احساس خستگی و کوفتگی داشتید؟ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| خ) فرد شادی بوده اید؟ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| ع) احساس خستگی کردید؟ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

| | تمام مواقع | اکثر مواقع | بسیاری اوقات | گاهی اوقات | مواقع کمی | هیچوقت |
|---|---|---|---|---|---|---|
| غ) وضعیت سلامتی تان فعالیتهای اجتماعی تان را محدود کرده است (مانند دیدار دوستان و فامیل). | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

۱۰) لطفاً پاسخی که بهتر وضعیت شما را توصیف می کند انتخاب کنید.

*(لطفا یک مورد در هر ردیف علامت بزنید)*

| | کاملاً درست است | عمدتاً درست است | مطمئن نیستم | عمدتاً نادرست است | کاملاً نادرست است |
|---|---|---|---|---|---|
| الف) به نظر می رسد کمی راحت تر از دیگران مریض می شوم. | ☐ | ☐ | ☐ | ☐ | ☐ |
| ب) سلامتی من همانند سلامتی کسانی است که می شناسم. | ☐ | ☐ | ☐ | ☐ | ☐ |
| ج) انتظار دارم وضعیت سلامتی من بدتر شود. | ☐ | ☐ | ☐ | ☐ | ☐ |
| د) وضعیت سلامتی من عالی است. | ☐ | ☐ | ☐ | ☐ | ☐ |

**مقیاس اضطراب و افسردگی**

این پرسشنامه به شما کمک خواهد کرد احساسات خودتان را بهتر بشناسید. لطفاً هر عبارت را بخوانید و پاسخی که به احساس شما نزدیک تر است را علامت بزنید. زمان زیادی صرف پاسخ دادن نکنید، اولین پاسخی که به نظرتان می آید احتمالاً دقیق تر از پاسخی خواهد بود که بعد از فکر کردن زیاد به آن می رسید.

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**۱. احساس تنش و نگرانی زیادی می کنم**

☐ اکثر مواقع
☐ مواقع زیادی
☐ گاهی اوقات
☐ اصلا

**۲. هنوز از چیزهایی که قبلاً لذت می بردم لذت می برم**

☐ قطعاً زیاد
☐ نه کاملاً زیاد
☐ فقط کمی
☐ اصلا

**۳. نوعی احساس ترس دارم مثل اینکه اتفاق بدی داره می افتد**

☐ خیلی زیاد و بطور خیلی نا جوری
☐ بله اما نه بصورت خیلی ناجوری
☐ کمی اما من را نگران نمی کند
☐ اصلا

**۴. احساس می کنم فعالیتم آهسته است**

☐ تقریباً تمام مواقع
☐ اغلب مواقع
☐ گاهی اوقات
☐ اصلا

**۵. نوعی احساس ترس دارم مثل اینکه "پروانه ای داخل شکمم" است**

☐ اصلا
☐ گاهی اوقات
☐ زیاد
☐ خیلی زیاد

**۶. علاقه به ظاهرخودم را از دست داده ام**

☐ زیاد
☐ تا حدی
☐ کم
☐ اصلا

**۷. می توانم بخندم و قسمت های خنده دار چیزها را درک کنم**
- ☐ به همان زیادی که همیشه می توانستم
- ☐ مواقع زیادی
- ☐ گاه گاهی اما نه خیلی زیاد
- ☐ اصلاً

**۸. افکار نگران کننده وارد ذهن من می شود**
- ☐ اکثر مواقع
- ☐ مواقع زیادی
- ☐ گاه گاهی اما نه خیلی زیاد
- ☐ فقط بعضی اوقات

**۹. احساس نشاط دارم**
- ☐ به هیچ وجهه
- ☐ کمی
- ☐ گاهی اوقات
- ☐ اکثر مواقع

**۱۰. می توانم آسوده بنشینم و احساس آرامش کنم**
- ☐ کاملاً
- ☐ معمولاً
- ☐ کم
- ☐ اصلا

**۱۱. احساس بی قراری می کنم به گونه ای که باید در حال حرکت باشم**
- ☐ در واقع خیلی زیاد
- ☐ زیاد
- ☐ کم
- ☐ اصلاً

**۱۲. با لذت به امور چشم دارم**
- ☐ به اندازه همیشه
- ☐ نسبتاً کمتر از سابق
- ☐ خیلی کمتر از سابق
- ☐ مسلماً نه

**۱۳. ناگهان احساس ترس می کنم**
- ☐ خیلی زیاد
- ☐ زیاد
- ☐ کم
- ☐ اصلاً

**۱۴. می توانم از خواندن یک کتاب خوب یا دیدن یک فیلم یا برنامه تلویزیونی یا رادیویی خوب لذت ببرم**
- ☐ اغلب اوقات
- ☐ گاهی اوقات
- ☐ کم
- ☐ خیلی بندرت

**مقیاس حمایت اجتماعی**

افراد گاهی اوقات انتظار مصاحبت، کمک و یاری و انواع حمایتهای دیگر از دیگران دارد. هر یک از انواع حمایتهای زیر چقدر برای شما قابل دسترس بوده است وقتی به آن نیاز داشتید؟ لطفا در هر مورد یک شماره را علامت بزنید.

| | هیچوقت | اوقات کمی | گاهی اوقات | اکثر مواقع | تمام مواقع |
|---|---|---|---|---|---|
| ۱. فردی که بتوانی روی او حساب کنی که وقتی نیاز داری صحبت کنی به صحبتهایت گوش کند | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۲. شخصی که برای درک موقعیت اطلاعاتی به تو بدهد | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۳. فردی که در مورد یک بحران خوب راهنمایی بکند | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۴. فرد قابل اعتمادی که بتوانی در مورد خودت یا مشکلاتت با او صحبت کنی | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۵. شخصی که راهنمایش را واقعاً می خواهی | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۶. فردی که بتوانی نگرانی ها و ترسهایت را با او در میان بگذاری | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۷. فردی که وقتی برای حل مشکلات فردی به او مراجعه می کنی تو را راهنمای کند | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۸. فردی که مشکلات تو را بفهمد | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۹. شخصی که کمکت کند جا بجا بشوی | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۱۰. فردی که اگر نیاز داشتی ترا به دکتر ببرد | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۱۱. فردی که اگر مریض بودی غذا برایت آماده کند | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۱۲. فردی که اگر مریض بودی در انجام کارهای روزانه ات به تو کمک کند | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۱۳. فردی که عشق و علاقه را بهت نشان بدهد | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۱۴. فردی که تو را دوست داشته باشد و احساس کنی تو را می خواهد | ۱ | ۲ | ۳ | ٤ | ٥ |

| | | | | | |
|---|---|---|---|---|---|
| ۱۵. فردی که علاقه و عاطفه خودش نسبت به تو را با مسافحه کردن و در آغوش گرفتن نشان دهد | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۱۶. شخصی که اوقات خوبی با تو داشته باشد | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۱۷. فردی که کمک کند تمدد اعصاب و آرامش داشته باشی | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۱۸. فردی که از بودن با او لذت ببری | ۱ | ۲ | ۳ | ٤ | ٥ |
| ۱۹.شخصی که کارهایی انجام بدهد که کمک کند فکرمشکلات از سرت بیرون برود | ۱ | ۲ | ۳ | ٤ | ٥ |

**با تشکر از شما**

## پرسشنامه مقابله

عبارتهای زیر مربوط می شود به اینکه شما در مواجهه با رویدادهای استرس زا زندگی تا چه اندازه از موارد زیر استفاده می کنید. **هر عبارت را با دقت بخوانید و مشخص سازید وقتی یک موقعیت استرس زا تجربه کردید، موارد زیر تا چه اندازه در مورد شما کاربرد داشت** و یا از آنها برای کاهش استرس خود استفاده کردید. لطفاً به همه عبارتها بر اساس مقیاس زیر پاسخ داده و برای هر مورد یکی از شماره ها را علامت بزنید. مثلاً اگر در پاسخ به یکی از عبارتها "پاسخ اصلاً این را انجام ندادم" انتخاب می کنید شماره ۱ را علامت بزنید.

| | **اصلاً این را انجام ندادم** | **کمی این را انجام دادم** | **تا حدودی این را انجام دادم** | **خیلی این را انجام دادم** |
|---|---|---|---|---|
| ۱. برای اینکه به مشکل خود فکر نکنم به کار یا فعالیتهای جایگزین دیگر روی آوردم | ۱ | ۲ | ۳ | ٤ |
| ۲. تمام تلاشم را کردم تا فکری به حال وضعیتی که در آن هستم بکنم | ۱ | ۲ | ۳ | ٤ |
| ۳. به خودم گفتم این واقعیت ندارد | ۱ | ۲ | ۳ | ٤ |
| ٤. حمایت عاطفی از دیگران گرفتم | ۱ | ۲ | ۳ | ٤ |
| ٥. از سعی و تلاش برای حل مشکل خود دست کشیدم | ۱ | ۲ | ۳ | ٤ |
| ٦. برای بهتر کردن وضعیت همه کار کردم | ۱ | ۲ | ۳ | ٤ |
| ۷. نتوانستم قبول کنم که این اتفاق افتاده است | ۱ | ۲ | ۳ | ٤ |
| ۸. ناراحت شدم و واقعاً این را دانستم | ۱ | ۲ | ۳ | ٤ |
| ۹. از دیگران کمک و راهنمایی گرفتم | ۱ | ۲ | ۳ | ٤ |
| ۱۰.برای مثبت تر دیدن آن سعی کردم از زاویه دیگری به آن نگاه کنم | ۱ | ۲ | ۳ | ٤ |

| | اصلاً این را انجام ندادم | کمی این را انجام دادم | تا حدودی این را انجام دادم | خیلی این را انجام دادم |
|---|---|---|---|---|
| ۱۱. خودم را سرزنش کردم | ۱ | ۲ | ۳ | ٤ |
| ۱۲. سعی کردم یک راه کاری را پیدا کنم | ۱ | ۲ | ۳ | ٤ |
| ۱۳. در مورد احساس خود با دیگران صحبت کردم | ۱ | ۲ | ۳ | ٤ |
| ۱٤. از تلاش برای حل مشکل دست کشیدم | ۱ | ۲ | ۳ | ٤ |
| ۱٥. به دنبال یک چیز خوب در شرایطی که دارم بودم | ۱ | ۲ | ۳ | ٤ |
| ۱٦. در مورد وضعیت خود جوک گفتم | ۱ | ۲ | ۳ | ٤ |
| ۱۷. برای اینکه کمتر به آن فکر کنم کارهای مثل رفتن به سینما، تماشای تلویزیون، خواندن، خیال پردازی، خوابیدن یا خرید را انجام دادم | ۱ | ۲ | ۳ | ٤ |
| ۱۸. این واقعیت را پذیرفتم که این وضعیت اتفاق افتاده است | ۱ | ۲ | ۳ | ٤ |
| ۱۹. احساسات منفی خودم را ابراز کردم | ۱ | ۲ | ۳ | ٤ |
| ۲۰. سعی کردم آرامش را از طریق مذهب و اعتقادات معنوی پیدا کنم | ۱ | ۲ | ۳ | ٤ |
| ۲۱. در مورد اینکه چه کار باید بکنم سعی کردم از دیگران کمک و راهنمائی بگیرم | ۱ | ۲ | ۳ | ٤ |
| ۲۲. یاد گرفتم با مشکل ام زندگی کنم | ۱ | ۲ | ۳ | ٤ |
| ۲۳. در مورد اینکه چه قدمهایی باید بردارم خیلی فکر کردم | ۱ | ۲ | ۳ | ٤ |

| | | | | |
|---|---|---|---|---|
| ٢٤. برای چیزهایی که اتفاق افتاده خودم را سرزنش کردم | ١ | ٢ | ٣ | ٤ |
| ٢٥. دعا یا نماز خواندم | ١ | ٢ | ٣ | ٤ |
| ٢٦. در مورد وضعیتی که در آن بودم مزاح کردم | ١ | ٢ | ٣ | ٤ |

**با تشکر از همکاری شما**

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