MODERATING ROLE OF POSITIVE RELIGIOUS COPING, ENGAGEMENT COPING, AND PERCEIVED AVAILABILITY OF SOCIAL SUPPORT AMONG CHRONICALLY- ILL PATIENTS

By

SHAKIRA HUMA SIDDIQUI

Dr. Muhammad Ajmal
NATIONAL INSTITUTE OF PSYCHOLOGY
Centre of Excellence
Quaid-i-Azam University
Islamabad – Pakistan

2011

MODERATING ROLE OF POSITIVE RELIGIOUS COPING, ENGAGEMENT COPING, AND PERCEIVED AVAILABILITY OF SOCIAL SUPPORT AMONG CHRONICALLY-ILL PATIENTS

By

SHAKIRA HUMA SIDDIQUI

A dissertation submitted to the

Dr. Muhammad Ajmal
National Institute of Psychology
Centre of Excellence
Quaid-i-Azam University, Islamabad

In partial fulfilment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

IN

PSYCHOLOGY

2011

CERTIFICATE

Certified that Ph.D. Dissertation “**Moderating Role of Positive Religious Coping Engagement Coping and Perceived Availability of Social Support among Chronically-ill Patients**” prepared by **Ms. Shakira Huma Siddiqui** has been approved for submission to Quaid-i-Azam University, Islamabad.

Dr. M. Anis-ul-Haque
Supervisor

FOREIGN EVALUATORS

Lynn Myers PhD
Professor of Health Psychology,
(Psychology Group)
School of Social Sciences & Law,
Brunel University Uxbridge,
Middlesex, UB8 3PH UK.
Email: lyn.myers@brunel.ac.uk

Pellet Howell
Professor of Experimental Psychology,
Department of Psychology,
University College London,
Grower Street,
London WCIE 6BT
Email: p.howell@ucl.ac.uk

Amy K. Eshleman PhD
Associate Professor of Psychology,
Wagner College,
1 Campus Road, Staten Island,
NY 10301 USA
Email: esh @wagner.edu

MODERATING ROLE OF POSITIVE RELIGIOUS COPING, ENGAGEMENT COPING, AND PERCEIVED AVAILABILITY OF SOCIAL SUPPORT AMONG CHRONICALLY-ILL PATIENTS

BY

SHAKIRA HUMA SIDDIQUI

Approved by

Supervisor

External Examiner

External Examiner

Director NIP

CONTENTS

DEDICATED TO

My Ammi and Papa

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ACKNOWLEDGEMENTS

I am thankful to Almighty God for his Mercy for completing this task. There are many people who helped me get through this process successfully. I am extremely grateful to Professor Dr. M. Anis-ul-Haque, my research supervisor, for guiding me and to refine my research ideas. His insight and advice gave me the confidence to carry on with this task. His valuable feedbacks were instrumental in enhancing the clarity and quality of this dissertation.

I am highly indebted to Professor Dr. Mah Nazir Riaz, Professor Dr. Anila Kamal, and Professor Dr. Maher Bano, for their valuable inputs in the final stage of my theses. My special thanks are due to Dr. Scheldon Cohen, Dr. Tim Heckman, and Dr. Kenneth Pargament for giving permission to adapt their scales for this research, and for guiding me regarding their scales. I extend my immense thanks to Dr. Tim Heckman for his important suggestions at different phases of this research. I owe special thanks to Professor Dr. Ghazala Rehman, my first research supervisor. I am thankful to Dr. I. U. Shad for motivating me to complete this research and to Dr. Jamil for his suggestions.

I am highly obliged to my friend Rahat Basher, the most enthusiastic supporter, for the motivation to continue, and for always enquiring about the status of my dissertation. I am greatly thankful to my sincere friends; Sadia Batool, Dr. Samia Navaid, Major Imtiaz, Tayyaba, Nayyer and Gulnaz (director office) for their empathy and timely help, when I was short of time in the final stages of submitting the dissertation. My younger friends Sadia and Usman deserve my special thanks for their sincere help in data entry and proof reading of my thesis.

I am also indebted to Dr. Fahim and Dr. Hidayet from Nuclear Oncology and Radiotherapy Institute (NORI) and the incharge ‘New Light AIDS group’, for facilitating the accessibility of the participants of present research.

I am also thankful to the NIP staff; from Library, computer section and admin section for their cooperation.

My family members would say they need no thanks. They have been my source of strength through these years, though they had to suffer on many occasions on account of my research work. I owe special thanks to my siblings; Aliya, Humaira, Uzma, Salman and Saadia for helping me out on many occasions and supporting me through the process of the doctoral program. I am greatly indebted to Professor Saadat and Mrs. Saadat for their active supportive through all these years.

Last but not the least; I am especially grateful to the individuals who participated in the current research, by sharing their perception of stigmatization and experiences of distress.

Shakira Huma Siddiqui

ABSTRACT

The present research was carried out to investigate the moderating role of positive religious coping, engagement coping, and perceived availability of social support in stress-distress relationship among chronically-ill patients (HIV/AIDS & cancer). This study also investigated the role of gender, locale, type of disease and stages of disease in the appraisal of stressors (poor physical well-being, disease-related discrimination & barriers to care), and different coping strategies (positive religious coping & engagement coping) as well as perceived availability of social support among chronically-ill patients. Present research comprised two separate studies, Study-I and Study-II. The Study-I was further conducted in two phases. Phase-I aimed at translation of the Physical Well-being Scale, Disease-related discrimination Scale, Barriers to Care Scale, Positive Religious Coping Scale, Engagement Coping Scale, and Interpersonal Support Evaluation List into Urdu language. Whereas, phase-II of the study-I aimed at investigating the psychometric properties of the translated instruments. The translated versions were administered to a sample of 90 chronically-ill patients, comprising HIV/AIDS (n = 35) and cancer (n = 55) patients. Convergent and discriminant validity of the instruments were addressed and the scales exhibited good internal consistency reliability. For study-II (main study) data were collected from 330 chronically-ill patients comprising 252 cancer patients and 78 HIV/AIDS patients. A total of 63% (n = 208) were symptomatic patients whereas, 37% (n = 122) were asymptomatic. Participants were administered Urdu version of the seven scales (Physical Well-being scale, Disease-related Discrimination, Barriers to Care scale, Positive Religious Coping Scale, Engagement Coping Scale, Perceived Availability of

Social Support and Beck Depression Inventory). Multiple regression and hierarchical moderated regression analyses were used to test the hypothesized relationships. Poor physical well-being and disease-related discrimination have significant main effects on depression. All the three moderating variables (positive religious coping, engagement coping and perceived availability of social support) were found significantly related to the depression. Positive religious coping and engagement coping was found significantly moderating poor physical well-being and depression relationship as well as disease-related discrimination and depression relationship. Whereas, moderating role of perceived availability of social support was found for poor physical well-being and depression as well as barriers to care and depression. Finally, t-test were conducted to explain the differences on stress appraisal, perceived availability of social support and coping strategies with reference to gender, locale, type and stages of disease. Overall, male patients differed from female patients in the appraisal of poor physical well-being, disease-related discrimination and barriers to care, whereas female patients significantly differed from male patients in their use of coping strategies. Patients from rural areas were high in the perception of poor physical well-being and barriers to care as compared to urban patients. HIV/AIDS patients differed from cancer patients in their high use of coping strategies and high perception of availability of social support as compared to cancer patients. Symptomatic patients were high in the appraisal of poor physical well-being, barriers to care and positive religious coping. HIV/AIDS and cancer patients were further compared across disease stages and gender. Symptomatic HIV/AIDS patients were high on the appraisal of poor physical well being and barriers to care as compared to asymptomatic HIV/AIDS patients. However, symptomatic cancer patients differed *from asymptomatic cancer patients in their high appraisal of poor physical well-being, barriers to care and their high use of positive religious coping. Male cancer patients were high on the appraisal of poor physical well-being, disease-related discrimination and barriers to care, whereas, female cancer patients were high on positive religious coping, engagement coping, and perceived availability of social support as compared to men cancer patients. Male HIV/AIDS patients differed from female HIV/AIDS patients in their high perception of availability of social support. Further research may test the role of negative religious coping and disengagement coping strategies among chronically-ill patients.*

Chapter-I

INTRODUCTION

Chronic illnesses are increasing throughout the world and Pakistan is no exception to this. Chronic illnesses persist over a long period of time, along with the difficulties in the physical, emotional, social, and psychological functioning of the individual.

Advancements in medical field have changed the status of many diseases from acute to chronic illness, e.g., prior to the development of antiretroviral therapy (ART), advanced stages of HIV were considered as terminal illness (Carrico, 2010). Although medical discoveries have increased life span of chronically-ill patients, however, the adjustment issues of chronically-ill patients still persist, making chronic illness a major health issue in the modern society.

Increase in survival rates among chronically-ill patients has been found associated with anxiety, depression fatigue, pain and cognitive impairment (Nelson, Nandy, & Roth, 2007; Zabora, Brintzenhofeszoc, Curbow, Hooker, & Piantadori, 2001).One of the common problem seen in chronic patients is depression.

Stressors and Distress among Chronically-ill Patients

Empirical evidences investigated living with chronic/terminal illnesses associated with various stressors e.g., major decisions about health, treatment related issues, changes in social relation, anxiety about future and death (Carter, MacLeod, Brander, & McPherson, 2004; Cohen & Leis, 2002; Vig & Pearlman, 2003), dependency on others, limited physical functioning (Luoma & Hakamies-Blomqvist, 2004), service-related stressors, stress related to adherence to treatment and stress of side effects (Kip, Ehlers, & van der, 2009; Sanjobo, Frich, & Fretheim, 2008).

Stressors of chronically-ill patients also include concerns about the lives of significant others (Aranda et al., 2005; Grumann & Spiegel, 2003; Wilson et al., 2007), well-being of significant others along with patients' need to have good social relations wanting to live longer with their partners (Fegg, Wasner, Neudert, & Borasio, 2005), concern for the welfare of their younger children and that they would no longer be available to bring up their kids (Luoma & Hakamies-Blomqvist, 2004), guilt for considering themselves accountable for their disease and for causing distress in their children's lives (Blinderman & Cherny, 2005; Bolmsjo, 2000), concerns regarding the method of disease disclosure to their children (Houldin & Lewis, 2006), coping with the effect of their illness on their family members (Keefe et al., 2003), and concern over social suffering and personal pain due to their perception of falling short of their life responsibilities (Williams, 2004).

Distress among Patients. Stressors (physical and psychosocial stressors) of chronically-ill patients have been examined associated with symptoms of posttraumatic stress, anxiety and depression (Bing et al., 2001). Chronically-ill patients report symptoms like pain and fatigue (Wilson et al., 2007), low energy, sleeping problems, nausea or vomiting (Cohen & Leis, 2002), concentration problems (Luoma & Hakamies-Blomqvist, 2004; Osse, Vernooij-Dassen, Schade, & Grol, 2005), anxiety and depression (McClain, Rosenfled, & Breitbart, 2003; Smith, Gomm, & Dickens, 2003). Patients have been studied perceiving their disease symptoms as losses (Houldin & Lewis, 2006; Wilson et al., 2007).

Significant levels of distress have been reported among chronically-ill patients (Breitbart, Lederberg, Rueda-Lara, & Alici, 2009; Cassarett & Inouye, 2001; Massie, 2004; Wilson et al., 2007). Severe emotional distress has been examined among cancer patients at initial diagnostics as well as during treatment phases (Andersen, Anderson, & deProsse, 1989). Empirical research investigated many stressors including mental stress (Bartlett & Gallant, 2001; Kalichman, 1995, 2000), higher levels of loneliness (Vance, 2006), high risk psychiatric disorders (Maj, 1990; Miller & Riccio, 1990), depression, anxiety, suicidal ideation (Bing et al., 2001; Carrico et al., 2007) and risk of attempting suicide (Steward et al., 2008) among HIV/AIDS patients. Moreover, diagnosis of HIV-disease or its advancement to AIDS has been found associated with suicidal risks; however the suicidal risk has been reported to have declined after adjustment to this crisis (Siegel & Meyer, 1999).

Screening for Distress

Due to the prevalence of depression, anxiety and suicidal risks among chronically ill patients, WHO has recommended early identification, assessment and treatment of physical, psychosocial and spiritual issues among chronically-ill patients (WHO, 2002). In the same line, National Comprehensive Cancer Network (2010) strongly suggested screening and treatment of distress among cancer patients. However, contrary to these recommendations, psychologically disturbed patients are not sufficiently screened at hospitals. Studies reported under-diagnosed depression among HIV/AIDS patients (Fulk, Kane, Phillips, Bopp, & Hand, 2004), and an inclination among health professionals to under diagnose depression in chronically-ill patients (Fallowfield, Ratcliffe, Jenkins, & Saul, 2001).

To study chronically-ill patients, health professionals use bio-medical model (Lawton, 2000; Rydahl-Hansen, 2005) or bio-psychosocial model (Heckman & Anderson, 2002; Heckman, 2003; Schmitz & Crystal, 2000; Wilson & Cleary, 1995).

Bio-medical model. Bio-medical model attributes patients' distress to their physical symptoms and their side effects while ignoring psychosocial stressors associated with chronic illness (Lawton, 2000; Rydahl-Hansen, 2005).

Bio-psychosocial model. Bio-psychosocial model of chronic illness not only studies physical stressors but also gives due consideration to psychosocial stressors. Bio-psychosocial model conceives chronic-illnesses as interplay of three spheres namely, environment, genetics, and behavior thus giving a holistic view of the chronic illness by integrating physical, psychological, and socio-cultural spheres. Bio-psychosocial model, while not ignoring medical factors i.e. physical, biochemical, and genetic gives consideration to psychological (thoughts, emotions, and behaviors) and socio-cultural factors.

The distressed lives of the chronically-ill patients are associated with medical as well as psychosocial stressors, it is for the reason that researchers have suggested to attend to both physical as well as psychological symptoms (Breitbart et al., 2009). Limited researchers have been found using bio-psychosocial model to study chronic illnesses (Heckman & Anderson, 2002; Heckman, 2003; Schmitz & Crystal, 2000; Wilson & Cleary, 1995). As to why psychosocial needs and symptoms are ignored while studying chronic illnesses have been studied correlated with limited expertise of the doctors as well as limited knowledge about patients' needs and coping strategies (Rydahl-Hansen, 2003, 2005).

Psychosocial Stressors and Distress

Diagnosis of chronic illness brings multiple challenges as well as changes in overall life pattern of the patients. Chronically-ill patients are not prepared to deal with the issues related to their disease (Houldin & Lewis, 2006). The major challenges in the life of chronically-ill patients have been reported to be dealing with physical changes associated with disease manifestation and its associated stressors, which includes but not restricted to medication side effects, regular adherence to medical treatment, non-affordability of treatment expenses, disease progression, physical dependency and related issues**.** Moreover, disease stigma and the resultant psychosocial barriers are the additional stressors in the life of a chronically-ill patient.

Stigmatized Discrimination. ''Stigma is the situation of the individual who is disqualified from full social acceptance'' (Goffman, as cited in Phelan, Link, & Dovidio, 2008, p. 358). The stigmatized individual is ''reduced in our minds from a whole and usual person to a tainted, discounted one'' (Goffman, as cited in Phelan, et al., 2008, p. 358).

Stigmatization damages the normal identity of the stigmatized individual. "Whenever a stigma is present, the devaluing characteristic is so powerful that it overshadows other traits and becomes the focus of one's personal evaluation" (Kurzban & Leary, as cited in Lubkin & Larsen, 2006, p. 52). "One's identity is not only spoiled, it is spoiled beyond repair, even if there is effective treatment for the stigmatizing condition" (Lubkin & Larsen, 2006, p. 50).

With AIDS, an identity is "flushed out" (Sontag, as cited in Annandale, 1998, p. 256), "with significant implications for the personal experience of the sufferer" (Annandale, 1998, p. 256). The stigmatized individuals have to manage their spoiled identity (Goffman, 1963).

With reference to stigma, Goffman (1963) differentiates between discredited and discreditable individuals. Discredited individuals have to put maximum efforts at hiding their condition, whereas the discreditable individuals successfully conceal their stigmatized attributes, however, in their efforts at maintaining secrecy these individuals may suffer from psychological distress. Conversely, discredited are the individuals, with declared or/and visible stigmatized attributes, associated with the likelihood of stigmatized discrimination and psychological distress.

Falk (2001) categorized stigma as existential stigma and achieved stigma. Existential stigma refers to stigma deriving from a condition which the target of the stigma either did not cause or over which he has little control. Achieved stigma, refers to stigmatized attributes earned on account of one's conduct and/or because the individual contributed heavily to attain the stigma in question**.**

Stigmatization allows the insiders to separate outsiders from them on account of their stigmatized attributes. This differentiation of insiders from outsiders, in fact, defines the consequences of non-conformist behavior and that what type of behavior merits exclusion from the group (Falk, 2001). The ideals about traits that are considered deviant, character blemishes or undesirable are culturally derived (Lubkin & Larsen, 2006).

Stigma in collectivist culture. Collectivist cultures that are characterized by sharing resources and problems of life with in-group members (Hui & Triandis, 1986; Shweder & LeVine, 1984) strictly demand conformity to the cultural norms by the in-group members. Social behavior of collectivist is determined by the existing cultural norms in their society (Davidson, Jaccard, Triandis, Morales, & Diaz-Guerrero, 1976). These individuals perceive the in-group norms as universally valid (Triandis, 1972). In collectivist cultures, deviation of a group member is followed by social disapproval and exclusion of the deviant from the in-group. Generally, collectivist societies have tight cultures, that demand strict adherence to norms and intolerance for deviation (Pelto, 1968). Conversely, "loose" cultures, characterized by unclear norms, exhibit comparatively more tolerance for the deviations, are, found in heterogeneous cultures and cultures in marginal positions (between two major cultural patterns) (Triandis, 1989).

Chronic Illnesses and Stigma

“Prejudice against individual with chronic illnesses exists as surely as racial or religious prejudice” (Lubkin & Larsen, 2006, p. 53). “Individuals with chronic illnesses present example of deviations from what many people expect in daily social interchanges. In general, most people do not expect to meet someone with an electronic voice box following treatment for laryngeal cancer. Both the cancer and the assistive device may not be readily visible, but once the person begins to speak, the individual is at risk of being labeled as “different” by others” (Lubkin & Larsen, 2006, p. 54).

Chronic illness can be stigmatizing in a variety of ways—by visible disabilities/disfigurement and abnormalities such as an amputated limb, by limited independence or mobility (for example, the use of a wheelchair or a cane); by impairing a normal daily routine (for example, frequent hospitalizations or the inability to work full time or at all), shortened life span, reduced energy level, dependency on medicines, use of gadgets in daily life and the like contribute towards stigmatized treatment or by the diagnosis itself and the impending death it implies (Scandlyn, 2000).

Individuals "with disabilities are stigmatized as being 'different' and therefore reduced or discounted as a people" (Goffman, as cited in Marini, Glover-Graf & Millington, 2012, p. 36). Similarly, a disease characteristic, or one having an unclear etiology, may contribute to the stigma of many chronic diseases. The course of a chronic illness is uncertain and unlimited in time, usually characterized by alternating periods of acute crisis and remission (Scandlyn, 2000). "In fact, any disease having an unclear cause or ineffectual treatment is suspect" (Lubkin & Larsen, 2006, p. 54).

Moreover, the degree of stigma attached to the disease is largely determined by the extent of visibility of the disease, the degree to which it progresses and becomes obvious with the passage of time, the extent to which social interaction is hampered by one's disease status, the degree of reaction of public to the stigma, societal perception of the cause of disease as genetic, accidental or patient's responsibility, and the apparent danger associated with the disease (Jones et al., 1984).

Chronically-ill patients fulfilling many of the above mentioned conditions are more likely to receive stigmatization, for instance, being a sufferer of a stigmatized illness at symptomatic disease stage. Patients of those diseases that are attributed to controllable factors with associated physical limitations, hampering the social interaction have to face stigmatized discrimination.

The characteristics which are stigmatized are defined by the individual cultures and sub cultures (Archer; Crocker, Major, Steele, Pfuhl & Henry, as cited in Heatherton, Kleck, Hebl, & Hull, 2000). “Televisions and magazines demonstrate, on a daily basis, that physical perfection is the standard against which all are measured, yet these societal values collide with the reality of chronic disease” (Lubkin & Larsen, 2006, p. 54).

“Societies that view health as a moral virtue and illness as ‘fall from grace’, (. . . .), Illness calls for a good deal of work on the part of the individual to reclaim their place of worth in the world” (Annandale, 1998, p. 258). “Acting like a sponge, illness soaks up personal and social significance from the world of the sick person. It reveals that to make sense of illness is simultaneously to make sense of the wider social world around us. Secondly, it discloses the highly metaphorical nature of sense-making, which, as the quotation demonstrates, is of as much importance to the doctor’s or the social scientist’s understanding as it is to the individual’s search for meaning in everyday life” (Annandale, 1998, p. 255).

One consequence of chronic illness is that the responsibility for all aspects of management—physical, mental, and social—increasingly falls on the shoulders of those who have the illness. **“**Stigma is associated with inequitable treatment, though the relative severity of such inequitable treatment often varies with the degree of severity of the stigmatized condition” (Lubkin & Larsen, 2006, p. 54). Stigma adversely affects physical and psychological well-being among patients population**.**

HIV-disease stigma and distress. HIV-disease patients reported distress on account of the stigma attached to their disease (Hamra, Ross, Karuri, Orrs, & D'Agostino, 2005; Lee, Kochman, & Sikkema, 2002). Disease-related stigma has been frequently reported by HIV/AIDS patients (Heckman, Kochman, & Sikkema, 2002; Vanable, Carey, Blair, & Littlewood, 2006). HIV-related stigma has been studied associated with depressive symptoms (Li, Lee, Thammawijaya, Jiraphongsa, & Rotheram-Borus, 2009) as well as suicidal risk (Dannenberg, McNeil, Brundage, & Brookmeyer, 1996). However, comparatively more stigma has been reported by HIV women patients (Kelly, Lawrence, Smith, Hood, & Cook, 1987), HIV symptomatic patients/AIDS patients, and HIV/AIDS patients living in rural areas (Heckman et al., 1998; Rounds, 1988).

Individuals infected with HIV have to face considerable stigma because many believe the infected persons could have controlled the behavior that resulted in infection (Halevy; Heckman; Herek, Capitanio, & Widaman; Weston, as cited in Lubkin & Larsen, 2006).

HIV positive individuals are stigmatized, even in the absence of visible symptoms, once their diagnosis is known; they receive stigmatized treatment from the society. HIV/AIDS patients report having faced social rejection immediately after their diagnosis (Kalichman et al., 2000; Siegel & Meyer, 1999). Diagnosis of HIV-disease or progression to symptomatic stages has been reportedly associated with suicidal ideation (Kalichman, Heckman, Kochman, Sikkema, & Bergholte, 2000). Stigmatized discrimination and prejudice adversely affects HIV/AIDS patients and brings drastic changes in their lives (Herek, 1999). Patients perceiving themselves as a burden (Rydahl-Hansen, 2005), and as a community stigma report having experienced lack of social support (Vanlandingham, Im-em, & Saengtienchai, 2005).

Disease stigma in rural areas. Traditional-rural populations tend to be more collectivist (Georgas, 1989; Katakis, 1984). Due to inflexibility for deviation from accepted behavioral patterns and cultural norms, HIV disease patients living in rural areas report difficulty in "accessing competent and compassionate health care" (Heckman et al., 1998, p. 366) and comparatively more stigmatized discrimination as compared to patients residing in urban areas (Zukoski & Thorburn, 2009). Patients living in rural areas report many barriers like transport related problems, prejudicial and discriminatory treatment like having experienced limited job opportunities, problems related to confidentiality, and limited social support (Bozovich et al.; D'Augelli; Heckman et al.; Rounds; Smith et al.; Walker; Wismer, as cited in Heckman et al., 1998).

HIV-disease and limited social support. Few social support services have been reported by HIV patients (Heckman et al., 2002). Low level of seeking care has been found associated with perceived stigma in sample of HIV-disease patients (Foreman, Lyra, & Breinbauer, 2003; Malcolm et al., 1998; Vanable et al., 2006; Ware, Wyatt, & Tugenberg, 2006). Perceived social support has been examined inversely related with perceived stigma (Galvan, Maxwell, Banks, & Bing, 2008).

Advanced disease stage and limited social support. Patients at advanced disease stages report loss of social support, fear of people, fear of isolation, concerns of death (Lethborg, Aranda, Bloch, & Kissane, 2006), inadequate amount of social support (Peters-Golden, 1982) and isolation as well as loneliness associated with anxiety and unresolved conflicts (Bolmsjo, 2000). Social rejection has been reported by HIV patients whose disease symptoms were treated as repulsive by their social groups (Herek, 1999). Lack of social support from colleagues, neighbors and distant friends has been investigated among advanced stage cancer patients (Luoma & Hakamies-Blomqvist, 2004).

Lack of social support and distress. Lack of social support has been examined negatively correlated with distress (Dahab et al., 2008; Goldzweig et al., 2009). Low level of emotional social support has been reportedly associated with depression (Li et al., 2009). Those lacking social support or having experienced many losses (like loss of job or relationship) reportedly suffer from tension, anxiety depression, neuro-cognitive deficits, somatization and do not prefer sharing their disease status (Goodkin et al., 2001). Patients reporting inaccessibility of social resources perceive, as if 'their social world had shrunk (Williams, 2004).

Fear of disclosure and anticipated discrimination. HIV positive individuals are aware of being treated differently, and they anticipate receiving discriminatory treatment (Major & O'Brien, 2005). HIV/AIDS patients anticipate negative labeling along with social penalties and social rejection and they report having experienced negative consequences after sharing their disease status (Calin, Green, Hetherton, & Brook, 2007; Rutledge, 2007; Skogmar et al., 2006; Wong et al., 2009). Conversely, disclosure of cancer diagnosis has not been associated with blame, shame, fear and scapegoating (Thorne, Newell, & Peckham, 2000).

Low social support and disengagement coping. In the context of non-availability of social support patients are found avoiding disease disclosure (Goodkin et al., 2001). HIV-disease patients anticipate social disapproval (Greeff et al., 2008; Sandelowski, Lambe, & Barroso, 2004; Wouters, Van, Van, & Meulemans, 2009), or report rejection after disclosure (Duldt & Giffin, 1985), therefore, they keep their disease status as secret (Kalichman, Dimarco, Austin, Luke, & Difonzo, 2003). Individuals lacking in social support get engaged in such behavior that directly or indirectly adversely affects their physical health (Wills, 1998). For example those who fear social rejection prefer using avoidant and passive coping strategies (e.g., not reporting disease, delay in initiation of medical treatment, limiting social contacts, avoiding visiting health settings, changing the topics to avoid being focus of the discussion etc.) to save themselves from anticipated social embarrassment. Empirical studies investigated passive coping strategies and lack of social support related with cancerous growth (Helgeson, Cohen, Schulz, & Yasko, 2000; Reynolds & Kaplan, 1990). Faster disease progression has been investigated among those individuals who received less social support and were highly stressed (Leserman et al., 1999).

Socio-cultural factors and disease disclosure. Disclosure of 'disease status' is preceded by analysis of the anticipated outcomes of disclosure (Serovich, Oliver, Smith, & Mason, 2005). Prior to disclosing the 'disease status' chronically-ill patients consider factors like: appraisal of the event, context or culture, timing, relationship to the person one is planning to disclose disease status as well as the anticipated positive consequences of disclosure (Eustace & Ilagan, 2010), race and ethnicity (Fekete et al., 2009), knowledge of the disease (Serovich, Kimberly, Mosack & Lewis, 2001; Simoni & Pantalone, 2004; Skogmar et al., 2006), cultural factors (Greeff et al., 2008; Mutchler et al., 2008), communication, family set-up, one's gender, sexual orientation (Lester et al., 2002) and good social relationships (Bairan et al., 2007).

Before disease disclosure patients also consider their nature of the relationship with the person they are planning to disclose their status to (Serovich et al., 2001, Simoni & Pantalone, 2004). Long romantic partners (Batterham, Rice, & Rotheram-Borus, 2005; Rutledge, 2007), friends, mothers and sisters instead of brothers and fathers (Kalichman et al., 2003) are considered more reliable for sharing disease status. HIV/AIDS patients shared their disease status through some other person or even as an anonymous person on the internet (Rutledge, as cited in Eustace & Ilagan, 2010). However, sharing disease status with the significant others has been reportedly related with receiving social support from them (Chandra, Deepthivarma, & Manjula, 2003; Greeff et al., 2008).

Benefits of disease disclosure. Empirical research examined disclosure of disease status associated with initiation of medication and medical adherence (Mellins et al., 2002; Serovich et al., 2001; Stirratt et al., 2006; Winstead et al., 2002). Benefits of disclosure namely, early treatment and therapeutic effects of disclosure have been reported by HIV/AIDS patients (Bradley & Follingstad, 2001; Chandra et al., 2003; Pinkerton & Galletly, 2007; Webster, Brunell, & Pilkington, 2009). Because of the importance of permissive and controllable environment for disease disclosure

(Rutledge, 2007), health workers are suggested to put efforts to make the environment permissive at community level so as to facilitate disclosure among HIV/AIDS patients (Wouters et al., 2009).

Barriers to Care. “Stigma can be associated with inequitable treatment, though the relative severity of such inequitable treatment often varies with the degree of severity of the stigmatized condition” (Lubkin & Larsen, 2006, p. 233). Barriers to care adversely affect psychological and physical health among chronically-ill patients (Heckman et al., 1998). Empirical studies examined HIV/AIDS patients experiencing prejudicial attitude in their social groups and discriminatory policies at various formal and informal organizational levels (Herek, Gillis, & Cogan, 1999). Some common barriers, reported by HIV/AIDS patients include stigma about their disease, apprehension about disease disclosure and its treatment (ART), insufficient information about their disease, traveling expenditure etc. (Birbeck et al., 2009; Dahab et al., 2008; Kip et al., 2009; Murray et al., 2009; Sanjobo et al., 2008). HIV/AIDS patients also reported transportation problems, issues of personal resources and the distance between patient and health professional as the biggest barriers to care (Heckman & Anderson, 2002). However, it has been reported that “even if health care professionals are geographically accessible, there is no assurance that care will be provided to gay men and women living with HIV” (Kelly et al., as cited in, Heckman et al., 1988, p. 366). These factors and barriers make the adjustment efforts complicated for the patients and increase their depression (Heckman et al., 2002). Due to the indifferent attitude of health care professionals, HIV/AIDS patients lessened their visits to health centers/ treatment centers (Heckman et al., 1998).

Advancement of the disease and distress. Chronically-ill patients disclose their disease status when their disease symptoms become visible, or their disease progresses to advanced disease stage (Batterham et al., 2005; Serovich et al., 2001; Winstead et al., 2002). It has also been reported that the resultant prejudicial attitude of the people and lack of care and stigmatized discrimination by health professionals (Kelly et al., 1987), makes the HIV/AIDS patients distressed and prevents them from disclosing their disease status any further.

Chronically-ill patients report many stressors, namely, disease-related discrimination, severity of disease symptoms, painful treatment, distressing side effects as well as limitations in physical functioning and resultant physical and psychological dependency**.** Patients at advanced stages experience decline in their usual activities, they think of themselves as no longer healthy (Lindqvist, Widmark, & Rasmussen, 2006), they are uncertain about their future (Aranda et al., 2005; Osse et al., 2005), and report death related concerns after diagnosis (Blinderman & Cherny, 2005; Wilson et al., 2007), as well as concern over dying at a younger age (Williams, 2004). Chronically-ill patients have to cope with physical as well as psychological effects of their treatment (Chochinov et al., 2002). Patients at advanced disease stages report high level of distress (Fanning & Emmot, 1994; McDowell & Newell, 1987; Tarakeshwar et al., 2006). Increased level of distress has been reportedly related with poorer prognosis among advanced cancer stages (Holland & Alici, 2010).

Uncontrollability of disease stressors. Sense of uncontrollability over disease stressors, lack of hope of improvement (Rydahl-Hansen, 2005), loss of control and a feeling of not belonging to the healthy individuals (Luoma & Hakamies-Blomqvist, 2004), and the need to have a sense of autonomy (Aranda et al., 2005), has been reportedly examined among chronically-ill patients. Appraisal of uncontrollability over the disease has been reportedly associated with disease progression (Heckman et al., 2002).

Uncontrollability and distress. Appraisal of uncontrollability over the worsening symptoms has been examined triggering pessimistic thinking, preoccupation with one's disease status, anxiety, depression and their associated features, namely, loss of appetite, lack of sleep, anhedonia, excessive worrying, disengagement and social withdrawal. Psychological symptoms have been known to worsen the disease by affecting a patient's adherence to treatment and avoidance of social interaction. Patients experiencing increase in dependency have been found high in reporting loss of independence (Blinderman & Cherny, 2005; Wilson et al., 2007). Increased dependency has been explored associated with suicidal thoughts (Bolmsjo, 2000).

Among patients of advanced disease stages, distress has been explored associated with uncontrollability of disease, low social support and severity of physical symptoms (Adler & Page, 2008; Jacobsen, 2009). Uncontrollable psychological, physiological and social stressors are likely to tax the existing coping resources of the patients, leaving them emotionally drained and distressed (McCain & Cella, 1995). Individuals with high level of distress and low level of social support have been found suffering from faster disease progression (Leserman et al., 1999).

Patients perceiving their illness as a complex situation report the need to have professional assistance to effectively cope with their disease (Lawton, 2000; Rydahl-

Hansen, 2005). However, patients do not find the medical professionals having the expertise to handle psychosocial and existential issues concerning their diseases. Patients perceiving their disease stressors as uncontrollable report their disease experience as intolerable (Carrico, 2010).

Psychosocial stressors and disease progression. The sense of uncontrollability over the disease as well as the experience of psychological distress has been examined related to immuno-suppression (Herbert & Cohen, 1993). Studies have also found psychosocial factors associated with patho-physiological processes among patients of chronic illnesses like cancer (Levy et al., 1990) and HIV/AIDS (Zorrilla, McKay, Luborsky, & Schmidt, 1996). Stress hormones have been examined adversely affecting the disease course by suppressing T-lymphocytes and immune functions (Maier, Watkins, & Fleshner, 1994; McEwen, 1998). Negative mood states, anxiety, depression and anger have been investigated adversely affecting the immune system among cancer patients (Anderson, 2002; Ben-Eliyahu, Shakhar, Page, Stefanski, & Shakhar, 2000; Irwin, 2002). Similarly depression and feelings of hopelessness have been studied influencing development and the course of cancer (Everson et al., 1996). Conversely, positive effects of cognitive behavior and stress management interventions on immune responses have also been investigated e.g., among HIV patients (Antoni et al., 2000).

Various researchers have recommended moderating effects of multiple treatment strategies (cognitive and behavioral psychological therapies) to relieve the patients from their symptoms (Holland & Alici, 2010). Psychosocial interventions bring positive changes in the life of chronically-ill patients probably through influencing biological processes that may be responsible for the advancement of the disease (Schneiderman, Antoni, Saab, & Ironson, 2001). Psychosocial interventions have been examined improving immune responses, hence bringing betterment in patients' life; among heart patients (Dusseldorp, van Elderen, Maes, Meulman, & Kraaij, 1999; Linden, Stossel, & Maurice, 1996), HIV/AIDS patients (Esterling et al., 1992) and cancer patients (Andersen, 1992; Fawzy et al., 1993).

Various psychosocial interventions for instance, perception of social support, seeking social support and use of various coping strategies have been associated with better quality of life (QOL) among patient population.

Social Support

Social support has been defined as "social interactions or relationships that provide individuals with actual assistance or with a feeling of attachment to a person or group that is perceived as loving or caring" (Hobfoll & Stokes, 1988, p. 499).

Social support has been identified as a resource that reduces or eliminates negative effects of stress, especially among individuals suffering from the stigmatized diseases and among advanced stages of AIDS (Hays, Turner, & Coates, 1992; Revenson, 1994; Schwarzer, Knoll, & Rieckmann, 2004; Wills & Fegan, 2001). Availability of care has been found associated with sense of security (Cohen & Leis, 2002).

Sources of social support. For the social support to be effective, provider of the support should preferably be significant other or from close network members.

Close social networks have been examined facilitating patients in adjustment to their disease (Bodenmann, 1997; Canty-Mitchell & Zimet, 2000; Coyne & Smith, 1991; Coyne & Fiske, 1992; Edwards, 2004; Finch & Vega, 2003; Hall, 1999; Zimet, Dahlem, Zimet, & Farley, 1988; Zimet, Powell, Farley, Werkmen, & Berkoff, 1990).

Empirical studies investigated a tendency among women to seek support from variety of sources, whereas, men mostly rely on their life partners for receiving social support (Klauer & Winkeler, 2002; Knoll & Schwarzer, 2002). Due to their different gender roles, men are expected to be self sufficient as compared to women, who were studied seeking support from their large and tight networks (Hobfoll, 1998). Despite seeking support from large and tight networks, women report having received less social support as compared to men (Glynn, Christenfeld & Gerin, 1999), perhaps because women give importance to quality of relationship with the support provider (Hagedoorn et al., 2000; Kuijer et al., 2000; Uno, Uchino, & Smith, 2002). Men and women benefit differently from the social support (Zimet et al., 1988). Women benefit more from social support when it is provided by the same sex (Uno et al., 2002).

Nature of social support and need satisfaction. Social support is effective as long as it matches receiver's needs (Wills & Fegan, 2001). It is for the reason that at the time of cancer diagnosis, connectedness with the social group has been investigated to have reduced loneliness by providing perception of control over the stressors (Lutgendorf, Anderson, Larsen, Buller, & Sorosky, 1999). Similarly, informational support has been examined moderating distress among HIV/AIDS patients (Hays et al., 1992).

Moderating role of social support. Beneficial effects of social support have been widely documented. Various research have found positive impacts of social support on quality of life (Hall, 1999; Helgsons & Cohen 1996; King, Reis, Porter, & Norsen, 1993; Pakenham & Rinaldis, 2001; Serovich, et al., 2001; Silver, Bauman, Camacho, & Hudis, 2003; Vinokur, Schul, & Caplan, 1987; Zimet et al., 1988).

Provision of support has been examined inversely related to distress (Cohen & Leis, 2002). High level of social support has been studied moderating the distress level (Cohen & Wills, 1985). Those receiving high social support report experiencing better mental health (Noris & Kaniasty, 1996). Individuals receiving social support are found happier as they receive empathy, encouragement, and validation. This in turn enhances their self esteem, confidence and self-efficacy, which is positively associated with their quality of Life (QOL). Empirical studies have recommended social support networks for reducing the distress among chronically-ill patients (McDowell & Serovich, 2007).

Perceived social support has been investigated inversely correlated with physical and psychological symptoms (Zimet et al., 1988). Family social support has been examined associated with better QOL among patients (Wig et al., 2006). Wills (1998) studied positive effects of social support among older HIV/AIDS patients. The perception of social support has been found associated with better psychological health among HIV/AIDS patients (Leserman et al., 1999; Swindells et al., 1991). HIV/AIDS patients reporting higher levels of informational social support were also found reporting fewer depressive symptoms (Hays et al., 1992).

Similarly, among cancer patients, moderating role of perceived satisfaction with social relationships has been examined inversely related with distress (Cohen &

Wills, 1985). Higher levels of social support were investigated positively correlated to high mortality among breast cancer patients (Cassileth, Lusk, Miller, Brown, & Miller, 1985; House, Landis, & Umberson, 1988; Reynolds & Kaplan, 1990; Spiegle, Bloom, Kraemer, & Gottheil, 1989; Waxler-Morrison, Hislop, Mears, & Kan, 1991). Helgeson et al. (2000) documented positive effects of social support, namely, relationships with partner and physician, among early-stage breast cancer.

Impacts of social support on stress appraisal. Social support has been studied positively affecting the appraisal of stressors (Wills, 1998). Social support has its protective role in face of traumatic stressors, as it provides emotional and material support and assists in removing stressful factors (Berkman, Glass, Brisette, & Seeman, 2000; Cohen, 2004; Kaspersen, Matthiesen, & Go¨testam, 2003). Beneficial effects of social support have been found at advanced stages of diseases, among patients of heart and cancer, and among those patients, who were in the phase of recovery (Revenson, 1994; Schwarzer et al., 2004; Wills & Fegan, 2001), and those suffering from advanced stages of AIDS (Hays et al., 1992).

Among advanced stage patients, social support has been found effective by increasing social contacts and bringing improvement in the perceived quality of life (Vinokur; Threatt, Caplan, & Zimmerman, 1989). It is for the reason that provision of social support from professional has been strongly recommended to help the patients as well as their significant others in adjustment to disease stressors (National Board of Health, 2005; Saunders, 2006; World Health Organization, 2002).

Social support and engagement coping. Social support functions as coping assistance too (Thoits, 1986). Direct and indirect effects of social support on psychological well-being has been documented (Baron, Cutrona, Hicklin, Russell, & Lubarof, 1990). Both cognitive coping and social support have been examined positively associated with psychological health (Lutgendorf et al., 1998). Patients receiving high social support have been found engaged in numerous positive behaviors, leading to improvement in physical health; namely, regular visits to health professionals, and regular intake of medicines (Catz, McClure, Jones, & Brantley, 1999; Catz, Kelly, Bogart, Benotsch, & McAuliffe, 2000). The regular intake of medicines (Lima et al, 2008), or even moderate treatment adherence is important for bringing required results (Knafl et al., 2008; Shuter, Sarlo, Kanmaz, Rode, & Zingman, 2007).

Provision of social support not only reduces distress, but also increases one's efforts at identifying coping resources (Wills, 1998). Those HIV positive individuals who perceived high social support were also found high in benefit finding in their condition (Luszczynska, Sarkar, & Knoll, 2007).

Need for social support. Chronically-ill patients express their need to get respect (Bolmsjo, 2000), they value being healthy and they express their need to receive care from social groups and professionals (Winterling et al., 2006). Empirical research has also emphasized on the importance of living normal lives for the chronically-ill patients (Clayton, Butow, Arnold, & Tattersall, 2005; Cohen & Leis, 2002; Kuuppeloma¨ki, 1999; Lindqvist et al., 2006; Winterling, Wasteson, Glimelius, Sjoden, & Nordin, 2004; Winterling et al., 2006). Availability of social support and care facilitates engagement coping strategies; namely seeking social support and services, approaching treatment facilities and adhering to medical treatment (Heckman, 2003).

Stress appraisal and distress. Stress appraisal of a person determines the well-being of the perceiver (Lazarus, 1999). “Psychological stress is the particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (Lazarus & Folkman, 1984, p. 19).

In the context of perceived stigma individuals have been found perceiving low social support (Galvan et al., 2008). Appraisal of low social support has been investigated negatively correlated with distress (Dahab et al., 2008; Folkman, Chesney, Pollack, & Phillips, 1992; Goldzweig et al., 2009; Li et al., 2009; McCain & Cella, 1995). However, those perceiving social support report positive effects on their stress appraisal (Wills, 1998).

Stress appraisal is known to determine the well-being of the perceiver (Lazarus, 1999). Individuals who appraised their physical symptoms as a temporary phenomenon and who loved themselves unconditionally were found less distressed (Blinderman & Cherny, 2005). Similarly, those individuals who, despite possessing ‘stigmatized attributes’, perceived something positive in their situation have been found high in self-esteem, emotional stability, and lack of stress symptoms (Heatherton et al, 2000). Individual factors and factors in one’s environment that are likely to vary across samples determine one’s coping strategies (Folkman & Lazarus, 1988).

Coping

“According to Lazarus, two processes mediate the person-environment relationship: Cognitive Appraisal and Coping. Appraisal is a process of evaluation in which it is determined to what extent a particular transaction or a series of transactions between the process and the environment is stressful. Coping is the process through which the person-environment relationship demands and the emotions they generate are managed” (Lazarus & Folkman, as cited in, Yehuda, Mostofsky, 2006, p. 14).

Coping strategies. Coping strategies have been broadly grouped into engagement and disengagement coping (Perczek, Burke, Carver, Krongrad, & Terris, 2002; Roesch et al., 2005). However, coping strategies do not always neatly fit into these two categories (Folkman & Moskowitz, 2004). For example, patients have been found using various strategies like considering many options, (active cognitive) or making efforts to obtain knowledge about handling the stressor, or using coping methods (active behavioral or problem-focused coping), and reducing tension by taking sedatives and disengagement coping (Billings & Moos, 1981).

Impact of engagement coping on distress. **“**Engagement coping can involve seeking primary or secondary control over the stressful event” (Levin & van Laar, 2006, p. 34). Primary control coping includes “efforts that are directed towards influencing objective events or conditions to enhance a sense of personal control over the environment and one’s reactions” (Compas et al., as cited in Levin & van Laar, 2006, p. 34) whereas, secondary control coping involves “efforts to adapt to the situation by changing the way one feels about or thinks about the stressful event” (Levin & van Laar, 2006, p. 34).

Engagement coping styles are either focused on changing the physical nature of the stressor or to alter one’s cognition, feelings or behavior towards the stressor, so as to reduce/finish one’s emotional distress (Heckman et al., 1998). Examples of engagement coping can be seen in active coping or efforts focusing on solution for the problem (Rogers, Hansen, Levy, Tate, & Sikkema, 2005), positive reframing, perceiving the problem from a more positive perspective (Cohen, 2002), seeking support (Heim, Valach, & Schaffner, 1997), having a fighting spirit (Cordova et al., 2003; Nordin & Glimelius, 1998), experiencing the reality' as relieving (Coyle, 2006), and engaging oneself in positive activities like book reading, music, cathartic expression and prayers (De Faye, Wilson, Chater, Viola, & Hall, 2006; Ohlen, Bengtsson, Skott, & Segesten, 2002). Looking for positive aspect of the situation has been found reducing psychological symptoms and associated with better QOL among HIV/AIDS patients (Fleishman & Fogel, 1994; Swindells et al., 1999). Similarly, 'minimizing unpleasant physical symptoms' in order to gain 'strength and courage' (Ohlen et al., 2002), directing focus away from disease (Lethborg et al., 2006), and planful problem solving has been examined associated with psychological well-being (Burgees et al., 2000). Moreover, positive thinking, active strategies, and acceptance of social support have been found important for staying normal among the patient population (Houldin & Lewis, 2006). Likewise, positive coping strategies have been examined positively related with well-being (Jim, Richardson, Golden-Kreutz, & Andersen, 2006; Ransom, Jacobsen, Schmidt, & Andrykowski, 2005), perception of meaning in life (Jim et al., 2006) and negatively related with psychological symptoms (Cohen, 2002; Nordin & Glimelius, 1998). Additionally, positive coping strategies (viz., the strategy of ‘experiencing the reality', exploring one’s responsibility in physical deterioration and the extent to which health professionals can be held accountable for their physical conditions) benefitted the advanced stage patients (Coyle, 2006).

Disengagement coping and distress. Disengagement coping strategies namely emotional, cognitive, behavioral distancing and denial (Perczek et al., 2002), are efforts to lessen the impact of the stressor through avoidance, denial, self-criticism, escape and/or social withdrawal. Psychological distress and poor QOL have been reported by patients using disengagement coping (Perczek et al., 2002; Ransom et al., 2005). Disengagement coping strategies have been examined associated with negative moods, feelings of isolation (Brown, King, Butow, Dunn, & Coates, 2000), and disease progression (Leserman et al., 1997). Passive coping, emotional disturbance and inexpressive styles have been studied associated with disease progression, worse prognosis and development of cancer (Cole, Kemeny, Taylor, & Visscher, 1996).

Religious Coping

Use of religious coping has been examined facilitating coping with psychosocial stressors among patient population (Jenkins & Pargament, 1995; Pargament, 1997). In contradiction to the arguments of those who view religion in generally critical fashion (Ellis, 1960; Freud, 1949), individuals using religious coping strategies, namely; reading religious book, offering prayers and their spiritual concerns (De Faye et al., 2006; Grumann & Spiegel, 2003; Kershaw, Northouse, Krittpracha, Schafenacker, & Mood, 2004; Kuuppeloma¨ki, 1999; Sherman, Simonton, Adams, Vural, & Hanna, 2000; Winterling et al., 2006) report better QOL.

"Religious coping may involve the use of cognitive or behavioral techniques related to religion or spirituality" (Tix & Frazier, as cited in, Dunn & O'Brien, 2009, p. 206). Individuals have been explored using positive as well as negative religious coping methods. Positive religious coping strategies, like; prayers, positive religious appraisal, having God's image as a merciful being and hoping for a change in one's situation has its roots in the belief of a secure and intimate relation with God. Conversely, negative religious coping methods are originated from the belief in a punishing God, or feelings of being abandoned by God (Pargament, 1997).

Impact of religious coping on appraisal and distress. Positive religious coping methods have been investigated negatively related to psychological distress (Exline, Yali, & Lobel, 1999; Jenkins, 1995; Pargament, 1997), as well as post-traumatic growth (Thombre, Sherman, & Simonton, 2010), whereas, use of negative religious coping methods have been found positively associated with psychological distress (Harrison, Harold, Hays, Eme-Akwari, & Pargament, 2001; Pargament, 1997).

Religious beliefs not only influence one's coping strategies but also the appraisal of the stressor (Pargament et al., 1998). Positive religious coping methods foster sense of control by bringing change in the appraisal of the stressor, and making the stressor appear comparatively bearable and meaningful (Pargament et al., 1990).

Perceiving God as ‘powerful enough to change one’s destiny’ makes the patient confident that his words will be listened to, his prayers will be answered, and he will be provided with support and strength to handle critical situation.

Religious coping strategies, sense of control and hope. The process of reinterpreting the stress appraisal, finding purpose of one’s own existence, establishing relationship with God, and reconsidering one’s coping strategies, enhance one’s self esteem and feelings of control (Pargament et al., 1990). Individuals need “to have sufficient control over the environment to provide a potential for resolution and to maintain hope” (McGee & Clark, as cited in Nowotny, 1989, p. 57). Those offering prayers and asking mercy and change in their condition, in fact believe in the power of prayers to bring miraculous change in their situation (McIntosh & Spilka, 1990). This belief in turn fosters feelings of control over the stressor. Perceived control by God over the disease has been examined positively correlated with high self esteem and less behavioral upset (Jenkins & Pargament, 1995), stress-related growth, and spiritual growth (Tarakeshwar & Pargament, 2001).

Loss of social support has been found affecting optimism and courage that subsequently leads to death (Frankl, 1984). Low hope among chronically-ill patients has been investigated inversely related to psychological distress and poor QOL (Ferrans, Zerwic, Wilbur, & Larson, 2005). Use of religious coping strategies provide hope and optimism (Sears, Woodward, & Twillman, 2007). Hope has been found associated with improvement in quality of life (Rustoeen, Cooper, & Miaskowski, 2010).

Positive impacts of religious coping. Religious coping has been examined associated with better health by providing meaning in life (Johnson, 1982; Park & Folkman, 1997; Steger & Frazier, 2005). Similarly, spiritual resources give the individual sense of coherence, make life comprehensible, manageable and meaningful and thus increase psychological well-being (Mullen, Smith, & Hill, 1993).

Use of religious coping also enhances self-efficacy (Telch & Telch, 1986). The importance of self-efficacy has been documented for the psychological adjustment among chronically-ill patients (Daaleman & Vandecreek, 2000).

Use of religious coping strategies in traumatic situation. Positive impacts of religious coping have been widely documented (Tarakeshwar et al., 2006). Religious coping has been examined as a common strategy among patients with a variety of illnesses (Koenig, McCullough, & Larson, 2001). Individuals' religiosity is likely to increase or deepens after the traumatic experience (Halstead & Hull, 2001; Richards, Acree, & Folkman, 1999). There is a complicated interaction between psychosocial and religious factors (Chatters, as cited in Phelps et al., 2009), choosing the strategy of positive coping strategy is determined by factors like religious denomination (Tix & Frazier, 1998), one's health status (Zuckerman, Kasl, & Ostfeld, 1984) and facing critical situations (Maton, 1989). Studies have investigated individuals turning to religion in problematic situations (Dein & Stygall, 1997; Demi, Moneyham, Sowell, & Cohen, 1997; Jenkins & Pargament, 1995; Pargament, 1997) and traumatic stress situations (Bickel et al., 1998; Ellison & Taylor, 1996; Maton, 1989; Mattlin, Wethington, & Kessler, 1990). Miller (1985) investigated the experience of loneliness and spiritual well-being among chronically-ill patients, whereas, Reed (1987) found positive impacts of spiritual perspective on well-being among terminally-ill patients.

Moderating effects of positive religious coping on health. Patient population has been examined using positive religious coping in face of life threatening or terminal diseases (McClain et al., 2003; Reed, 1987), major life stress including chronic-illness (Ano & Vasconcelles, 2005), and coping with disease stressors (Berglund, Belund, Gustafson, & Sjoden, 1994; Folkman & Moskowitz, 2000; Johnson & Spilka, 1991; Pargament, 1997).

Research have investigated the positive effects of religion and other forms of coping associated with psychological and physical symptoms among patients (Abraído-Lanza, Vázquez, & Echeverría, 2004), overall well-being among patients (Powell, Shahabi, & Thoresen, 2003), in improving physical well-being (Berglund et al., 1994), and in adjustment and optimal health (Fitchett, Peterman, & Cella, 1996; Harrison et al., 2001; Matthews, 1997; Pargament, Koenig, Tarakeshwar, & Hahn, 2001).

Individuals using positive religious coping report positive impacts on their psychological health (Kaplar, Wachholtz, & O'Brien, 2004; Pargament, 1997), and psychological-well being (Pargament et al., 1994). Use of positive religious coping (Johnson & Spilka, 1991; Sodestrom & Martinson 1987) and spiritual awareness (Smith et al., 1993) have been examined inversely associated with distress.

Importance of religious coping and religiosity have been documented with reference to despair, anger–hostility, and social isolation among cancer patients and non-patients population (Acklin, Brown, & Mauger, 1983), and on mood elevation

(Antoni et al., 2000; Greer et al., 1992). Cancer patients high on spiritual well-being report low anxiety (Kaczorowski, 1989). Empirical studies have investigated positive impacts of religious coping strategies on physical well-being as well as psychological health (Harrison et al., 2001; Koenig et al., 2001).

Use of religious coping strategies among patients. Cancer patients have been found relying on positive religious coping (namely, meditation, prayer and study of religion based on religious beliefs, seeking God's love and care), for dealing with disease related distress (Balboni et al., 2007; Koenig et al., 2001). Religious beliefs have been found associated with positive outcomes after diagnosis of breast cancer (Feher & Maly, 1999). It has been investigated that, those who try to use the strategy of 'benefit finding' from their illness and do not appraise their disease as a result of Gods' negative intention report higher well-being (McCullough, Pargament, & Thoresen, 2000).

Religious coping among symptomatic patients. Advanced stage patients, who are uncertain about the disease course or their future are found opting for religious coping (Spilka & Schmidt, 1983). Among patients of advanced/ symptomatic stages sense of uncontrollability over the chances of surviving the illness has been found associated with the weakening of their ability to express and deal with their problems that are physical, psychosocial and spiritual in nature (Rydahl-Hansen, 2003, 2005). Moderating effects of religious coping have been explored among advanced stages of HIV/AIDS (Hays et al., 1992), as well as cancer patients (Balboni et al., 2007; Phelps et al., 2009; Tarakeshwar et al., 2006; Wilson et al., 2007). Among advanced stage cancer patients, religion and spirituality affects one’s well-being by increasing self awareness, positive appraisal and positive coping with a belief in connectedness with others, faith, sense of control, self-confidence, and hopefulness (Lin & Bauer-Wu, 2003). In later stages of disease, problem of physical decline with its attendant concerns may be the reason for seeking God's help (Jenkins, 1995).

Religious coping and medical decisions. Religious coping not only helps in adjusting to chronic illnesses but also aids in taking medical decisions (Jacobs, Burns, & Bennett, 2008; Silvestri, Knittig, Zoller, & Nietert, 2003). Patients have been taking 'high risk/aggressive medical treatments' near to death, due to their faith in the God's power to bring miraculous changes in their physical condition (Braun, Beyth, Ford, & McCullough, 2008; Bullock, 2006; McKinley, Garrett, Evans, & Danis, 1996). Critically injured patients have been found having hope for a miracle from God, even when physician told the patients about the uncontrollability of their disease (Jacobs et al., 2008).

Due to religious faith patients try to 'see' religious purpose in their suffering, and this faith helps them endure aggressive and painful treatment during the last days of their life (Bullock, 2006; Crawley et al., 2000). Patients with religious orientation perceive that receiving palliative care implies that patients have lost hope in God before God has given up on patient (Sulmasy, 2006). Empirical studies investigated unrealistically optimistic cancer patients receiving more aggressive medical treatment at the terminal stage of their disease in the expectations of survival (Sears et al., 2007). However, opting for aggressive treatment at terminal stages, despite doctor's advice not to undergo such treatment, has been found correlated with poor quality of death as well as adjustment problems for the caregivers after patients' death (Wright et al., 2008).

It has been recommended to integrate religious beliefs in psychological therapeutic interventions (Harris, Thoresen, McCullough, & Larson 1999; Sperry & Shafranske, 2005), and to involve chaplains in the therapies along with trained professionals (Curlin et al., 2007). The spiritual needs of the patients have been reportedly ignored by the doctors (Ehman, Ott, Short, Ciampa, & Hansen-Flaschen, 1999; Kristeller, Zumbrun, & Schilling, 1999). Those terminally-ill patients who were provided with spiritual support in health settings reported higher QOL (Balboni et al., 2010).

It is widely accepted that cultural factors may affect an individuals’ perception of the stressors and coping responses. Therefore, the findings obtained in one country may not be readily generalizable to another one. Pakistan is a south Asian, developing country, large segment of its population is living in remote rural areas, conforming to the cultural norms which are mainly embedded in religious traditions. Pakistani culture is primarily collectivist in nature (Hofstede, 1991). As collectivist cultures generally demand strict conformity to cultural norms (Davidson et al., 1976; Hofstede, 1984), so conformity is largely emphasized in this region too, and the non-conformists are subjected to stigmatized discrimination, social withdrawal and even violent assault (e.g. incident of award of death punishments). According to Falk (2001), the extreme form of social rejection by the society for the non-conformist, communicates to the other members of the society as to what happens to those who deviate.

Due to low literacy rate, limited knowledge and specific cultural set-up in this region, onset of the diseases are generally attributed to the sinful life, immoral sexual practices, irreligious deeds, and unhealthy life styles on the part of the patient, Hence patients are considered responsible for having contracted the disease and having achieved the disease stigma (Falk, 2001), due to their character blemishes (Goffman, 1963), and known deviations in their personal traits (Campbell & Deacon, 2006).

"The move from the demonization of illness to the attribution of fault to the patient is an inevitable one" (Annandale, 1998, p. 255). "Undoubtedly, the characterological predisposition often attributed to cancer sufferers (for example, inexpressive, repressed, hypersensitive etc), do untold damage, and the potential to link affliction to life style (for example, diet) lays the ground open to fictions of unsurpassed personal responsibility, drawing attention away from environmental and other causes in the process" (Sontag, as cited in Annandale, 1998, p. 255).

In the local context, HIV/AIDS and cancer are amongst the few most dreadful and stigmatized diseases. The factors that drive stigma for both HIV/AIDS and cancer diseases are that both diseases exhibit deviations from healthy body image, patients of these diseases reach severe illness stage, receive painful medical treatment with associated side effects, their disease course is not known and the disease etiology is unclear. Diseases with unclear etiology are subjected to stigmatization (Lubkin & Larsen, 2006).

"HIV/AIDS and cancer are similar in that both diseases are ominous and life threatening. Patients can expect to undergo extensive tests and procedures and to be exposed to complicated equipment. Their privacy is often invaded by medical technology leading to perceived helplessness and loss of control" (Carson, Soeken, Shanty & Terry, 1990, p. 30). “In cancer, it seems people have found a sense of guilt and shame” (Sontag, as cited in Annandale, 1998, p. 256). "To get AIDS is precisely to be revealed, in the majority of cases so far, as a member of a certain risk group” (Annandale, 1998, p. 256).

In the local context, both HIV/AIDS and cancer are generally perceived as dreadful diseases, associated with aggressive medical treatment, followed by extreme distress, changes in physical appearances, severe pain, and painful death. Unfortunately, like other illnesses, these two diseases are also reported late in the local context. Due to the ignorance about the initial signs and symptoms of the disease, generally patients fail to relate the initial physical changes as the possibility of onset of the disease. However, even if they are aware of such symptoms, their ignorance about the specialized diagnostic/treatment centers and the screening facilities, or the inaccessibility to these places on account of distance or limited financial resources on the part of the patient are the reasons of not reporting the disease at initial stages. Besides, due to their apprehensions of being diagnosed as the ‘sufferer’ of some ‘dreadful’ disease, patients are reluctant to go for screening.

It is for the reason that despite frequent awareness campaigns by government/non-government health organizations regarding the causes of disease, preventive measures, initial disease symptoms, importance of early screening, and benefits of early treatment, diseases are generally reported when visibility and worsening of the physical symptoms and painful nature of the disease makes it inevitable for the patient to consult medical professionals.

At the time of first reporting of the symptoms to the health professionals, diseases have already reached advanced stages, warranting aggressive medical treatment to cure the worse symptoms or/and control the disease. The aggressive medical treatment immediately after the first reporting of the disease validates the assumption of the masses who conceive the onset of cancer or HIV/AIDS as life threatening, and associate diagnosis of these diseases with dreadful medical treatment, unbearable pain, severe physical changes and even death.

These practices of late reporting of the diseases in local culture have also been confirmed by Dr. Hidayet, Oncologist, at Nuclear Oncology and Radiotherapy Institute Islamabad (Hidayet, personal communication, February, 7, 2009). However, medical treatment (e.g., surgical removal of the cancerous part of the body, chemotherapy, high ART etc.) at advanced stages becomes less effective and even impossible.

Patients at advanced stage of their disease are discredited (Goffman, 1963), by virtue of their painful and visible symptoms or/and physical limitations. Hence, it becomes difficult for them to maintain secrecy about their disease status. These patients are frequently found trying to hide their symptoms or passing off their symptoms to other conditions. However, they are also found disclosing their disease status to their family members, in work environment and with health professionals (Batterham et al., 2005; Serovich et al 2001; Winstead et al., 2002).

Disease stressors, namely adverse impacts of being a ‘sufferer’ of chronic illness, severe medical treatment (Bing et al., 2001; Carrico et al., 2007; Greeff et al., 2008; Kalichman, 2000; Sandelowski et al., 2004; Steward et al., 2008; Wouters et al., 2009), inequitable and discriminatory treatment (Lubkin & Larsen 2006), and stigmatization complicate adjustment efforts and increase depression among chronically-ill patients (Bartlett & Gallant, 2001; Goodkin et al., 2001; Heckman et al., 2002; Kalichman, 2000).

Considering the miserable experience of being stigmatized and denied the love and care on account of one's poor physical well-being, researcher aimed at assessing the disease-related discrimination and barriers to care along with the level of poor physical well-being among HIV/AIDS and cancer patients, as these two diseases are on rise and amongst the few most dreadful and stigmatized diseases in this region.

Due to the known positive impacts of engagement coping (Burgees et al., 2000; Cohen, 2002; Coyle, 2006; Heckman, 2003; Houldin & Lewis, 2006; Jim et al., 2006; Lethborg et al., 2006; Ohlen et al., 2002; Ransom et al., 2005), and social support (Berkman et al., 2000; Catz et al., 1999; 2000; Cohen, 2004; Heckman, 2003; Kaspersen et al., 2003; Schwarzer et al., 2004; Wig et al., 2006; Wills & Fegan, 2001), in mitigating distress among chronically-ill patients, this study focused on studying moderating role of engagement coping and social support in the stress-distress relationship.

It is also worth noting that the vast majority of the research on moderating stress-distress relationship have been found mostly on engagement coping or social support in western context (Berkman et al., 2000; Cohen, 2004; Heckman, 2003; Kaspersen et al., 2003; Wig et al., 2006). The present research will study moderating role of 'perceived availability of social support' and 'engagement coping' in the local context.

Reviewing the literature regarding the moderating impacts of positive religious coping among patient population (Antoni et al., 2000; Harrison et al., 2001; Koenig et al., 2001; Lin & Bauer-Wu, 2003; Pargament et al., 2001; Powell et al., 2003), especially those patients who are at symptomatic/advanced disease stages or/and suffering from stigmatized diseases (Foreman et al., 2003; Galvan et al., 2008; Goodkin et al, 2001; Hamra et al., 2005; Heckman et al., 2002; Lee et al., 2002; Vanable et al., 2006; Vanlandingham et al., 2005; Ware et al., 2006), it was evident that sufferers of stigmatized diseases or advanced disease stages, report non-availability of social support (Adler & Page, 2008; Carson et al. 1990; Hays et al., 1992; Jacobsen, 2009; Lethborg et al., 2006; Peters-Goldem, 1982; Swindle et al., 1989), distress (Dahab et al., 2008; Goldzweig et al., 2009; Holland & Alici, 2010; Li et al., 2009; Tarakeshwar et al., 2006), and sense of uncontrollability over the disease stressors associated with distress (Adler & Page, 2008; Jacobsen, 2009; Luoma & Hakamies-Blomqvist, 2004). Perceived loss of control and psychological distress has been found associated with immuno-suppression (Herbert & Cohen, 1993).

Sense of hopelessness frequently follows uncontrollability (Limandri & Boyle, 1978). Loss of hope has been found related to critical conditions (Rydahl-Hansen, 2005), and the perception of illness as an intolerable experience (Carrico, 2010) among oncological and other chronically-ill patients. “Hopelessness adversely affects the disease course and quality of life” (Craig & Abeloff, as cited in Carson et al., 1990, p. 30). Psychological distress, poor well-being and low hope have been found associated with poor QOL (Ferrans et al., 2005).

Conversely, patients perceiving control over their stressors report hope (McGee & Clark, as cited in Nowotny, 1989)**.** The belief that offering prayers and asking mercy from God may change their medical condition, fosters feelings of control over the stressors in patient population (McIntosh & Spilka, 1990). Hoping for a miracle from God is effective even when uncontrollability of the disease has been declared by medical doctors (Jacobs et al., 2008). Hoping for a miraculous change, and perceiving sense of autonomy over disease stressors increases ones resilience. It is for the reason that sense of autonomy has been largely emphasized among patient population (Aranda et al., 2005; Blinderman & Cherny, 2005; Wilson et al. 2007). Religion gives sense of controllability over the stressors (Pargament et al., 1990).

These findings underline the need to address the positive impact of religious coping among chronically-ill patients. Research on moderating role of religious coping has also been called for (Heckman, 2003), and it has been recommended to focus research "not only toward a physical cure, but also toward ways that strengthen the spirit and the psychological resiliency of afflicted individuals" (Carson et al., 1990, p. 28).

However, limited research was found on buffering role of positive religious coping in stress-distress relationship and that too in western context, while little research has addressed this important issue in South Asian context, especially in Pakistani context. To the scholar's knowledge, the extant literature has not yet examined this issue, and there is a need to examine this relationship. To fill this gap in the study, the scholar examined the moderating role of positive religious coping in stress-distress relation in the present research.

Poor physical well-being, disease-related discrimination and barriers to care have been studied among HIV/AIDS sample in the western context (Heckman, 2003). However, the present research will additionally address these stressors among cancer patients too. This research will study moderating role of positive religious coping, engagement coping and perceived availability of social support in the stress-distress relationship. This research will further investigate whether chronically-ill patients will differ with respect to their appraisal of poor physical well-being, disease-related discrimination, barriers to care, use of coping strategies and perception of availability of social support, across two diseases (HIV/AIDS & cancer), across two disease stages (symptomatic/asymptomatic), gender (male/female) and locale (urban/rural).

The given/following conceptual framework (Figure-I) is based on the bio-psychosocial model that generally guides theoretical and empirical investigation and provides a more holistic picture as compared to biomedical model.

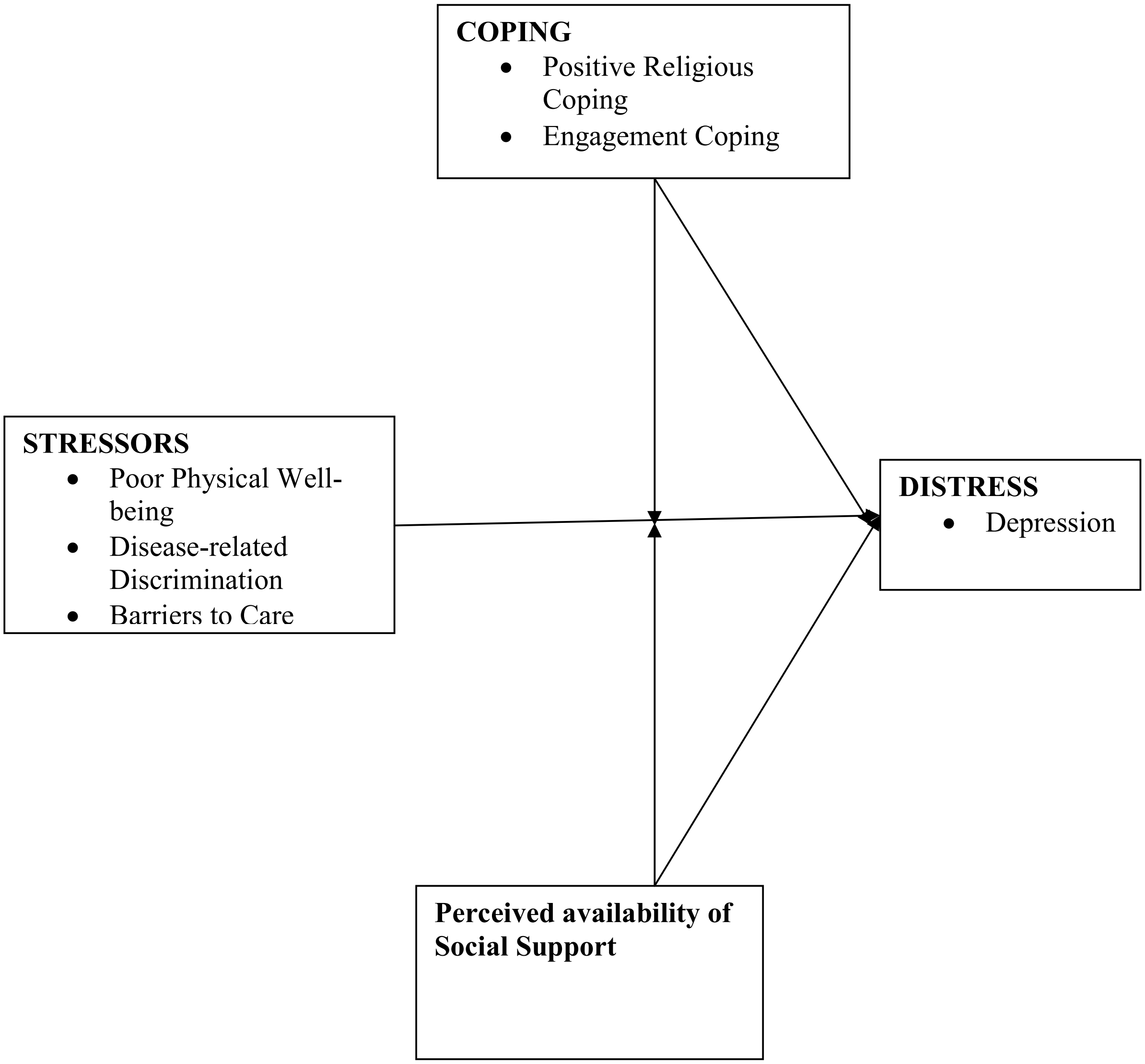

Figure 1. Conceptual Framework for present study

The moderator question in the present research was: Does the relationship between stress and distress depends on the perceived availability of social support, engagement coping and positive religious coping. Present research has therefore focused on 1) Investigating appraisal of stigmatized treatment, barriers to care and poor physical well being as associated with distress level of the chronically-ill patients. 2) Moderating role of positive religious coping, engagement coping and perceived availability of social support in stress-distress relationship among chronically-ill patients. 3) Investigating the differences in perception of stressors as well as coping strategies and perceived availability of social support with reference to gender, locale, disease type and disease stages. Keeping in view the above mentioned objectives, hypotheses have been derived in the light of previous literature.

Present research will empirically test the hypotheses in following manner: First, this study will evaluate the main effects of stressors (poor physical well-being, disease-related discrimination and barriers to care), coping strategies and perceived availability of social support on distress (depression). Secondly, it will examine the mitigating role of coping strategies and perceived availability of social support between the relationship of stressors and distress. Additionally, it will investigate the role of gender, locale, type of disease and stage of disease in the stress appraisal, use of coping strategies and perceived availability of social support among chronically-ill patients.

Findings of this research will help identifying and recommending individualized interventions for moderating distress level and improving upon QOL among chronically ill patients.

Chapter-II

METHOD

Research Design

Present research was conducted in two parts: study-I and study- II.

Study-I

Study 1 was conducted to achieve the following objectives:

1. Translation and adaptation of the instruments to be used in the main study.
2. Psychometric properties of the translated versions of the instruments.

Study-II

Study II was conducted to achieve the objectives as follows:

Objectives of the Study

1. To find out the relationship of stress (poor physical well-being, disease-related discrimination, and barriers to care) and distress (depression).
2. To find out moderating role of positive religious coping, engagement coping and perceived availability of social support between stress and distress relationship.

3. To investigate differences in stress appraisal, coping strategies and perceived availability of social support with reference to gender, locale, disease type, and disease stages.

Hypotheses

Following hypotheses have been derived in the light of previous literature.

H 1: The poor physical well-being will be positively associated with depression among chronically-ill patients.

H 2: The disease-related discrimination will be positively associated with depression among chronically-ill patients.

H 3: The barriers to care will be positively associated with depression among chronically-ill patients.

H 4: The positive religious coping will be inversely related to depression among chronically-ill patients.

H 5: The engagement coping will be inversely related to depression among chronically-ill patients.

H 6: The perceived availability of social support will be inversely related to depression among chronically-ill patients.

H 7: Positive religious coping will positively moderate the relationship between stressors (poor physical well-being, disease-related discrimination and barriers to care) and distress (depression) among chronically-ill patients, more specifically;

H 7a: Positive religious coping will positively moderate the relationship between poor physical well-being and depression among chronically-ill patients.

H 7b: Positive religious coping will positively moderate the relationship between disease-related discrimination and depression among chronically-ill patients.

H 7c: Positive religious coping will positively moderate the relationship between barriers to care and depression among chronically-ill patients.

H 8: Engagement coping will positively moderate the relationship between stressors (poor physical well-being, disease-related discrimination and barriers to care) and distress (depression) among chronically-ill patients, more specifically;

H 8a: Engagement coping will positively moderate the relationship between poor physical well-being and depression among chronically-ill patients.

H 8b: Engagement coping will positively moderate the relationship between disease-related discrimination and depression among chronically-ill patients.

H 8c: Engagement coping will positively moderate the relationship between barriers to care and depression among chronically-ill patients.

H 9: Perceived availability of social support will moderate the relationship between stressors (poor physical well-being, disease-related discrimination and barriers to care) and distress (depression) among chronically-ill patients, more specifically;

H 9a: Perceived availability of social support will moderate the relationship between poor physical well-being and depression relationship among chronically- ill patients.

H 9b: Perceived availability of social support will moderate the relationship between disease-related discrimination and depression relationship among chronically-ill patients.

H 9c: Perceived availability of social support will moderate the relationship between barriers to care and depression relationship among chronically- ill patients.

Chapter-III

STUDY-I

Objective

The objective of the study was to translate and adapt the instruments to be used in the main study. Moreover, this study also aimed at establishing reliability and validity of the translated versions of the instruments.

Translation Procedure

To address the validity issues of the scales (Physical Well-being, Disease-related Discrimination, Barriers to Care, Positive Religious Coping, Engagement Coping, Interpersonal Support Evaluation List) and 21st item of Beck Depression Inventory) in the local context, the questionnaires were adapted in the local context.

Item 21st of the BDI (Beck & Steer, 1993) was translated for the present study, as the Urdu-translated version of BDI (Khan, 1995), did not include the said item, for having sexual connotation (Mueen, Khurshid, & Hassan, 2006). Present study however, aimed at translating this item which was assessing lack of libido desire as well as ‘anhedonia’.

However, knowing the culturally tabooed connotation of the item, participants were instructed that the statements of BDI are assessing the adverse impacts of disease-related difficulties including negative behavior of others upon their thinking, feeling, behavior and natural desires. Participants were further instructed that their honest and uninhibited responses will make the study useful for all the individuals facing similar conditions (Appendix N). Rapport was developed with the participants to obtain their true and honest responses.

For test adaptation, following approaches have been recommended, namely back translation, decentring and committee approach (Van de Vijer & Leung, as cited in Weiner et al., 2003). The frequently used method of translation, namely, back translation, considers the original-version of the scale as the standard against which the translated version is compared (Beck, Bernal, & Froman, 2003; Brislin, 1976). Therefore, this method pays less attention to the "connotations, naturalness and comprehensibility and more to the semantics" (van de Vijer & Leung, as cited in Weiner et al., 2003, p. 39), as a result the instruments are translated while bringing minimum modifications in the original version (Beck et al., 2003; Brislin, 1976). After the back translation process, the translated version may show lexical equivalence, however, lacking in equivalence in meaning (Brislin, 1976; Birbili, 2000). Moreover, it is not easy to determine "whether identified mistakes have been made in forward or back translation" (Grunwald & Goldfarb, as cited in Ozolins, 2009, p. 10).

According to the International Test Commission, (2010) "test developers/publishers should ensure that the adaptation process takes full account of linguistic and cultural differences among the populations for whom adapted versions of the test or instrument are intended"(p. 2). Sensitivity to cultural differences has also been previously suggested for translating the measures developed in a different culture (Bulmer & Warwick, 1993).

While translating the instruments originally developed in a different cultural context in a different culture and language, it is unavoidable to use conceptual equivalence, hence it becomes difficult to translate the material with minimum changes (Drennan, Levett, & Swarts, 1991). It is for the reason that "methodology of back translation is generally not recommended if there are culture specific aspects of the test" (Weiner et al., 2003, p. 107). This methodology, "namely, back translation works best when the languages and cultures involved are very close" (Ozolins, 2009, p. 10).

As in the present research, emic-etic distinction (Brislin, 1976, 1986) was the guide to instrument translation; therefore efforts were focused on cross-cultural and conceptual equivalence, rather than linguistic/literal equivalence. Current study used a recommended method of translation, namely committee approach (Van de Vijer & Leung, as cited in Weiner et al., 2003). In this method, members can complement each other (Van de Vijer & Leung, as cited in Weiner et al., 2003) and are more likely to catch mistakes (Brislin, as cited in Weiner et al., 2003).

However, before adaptation of the instruments, permission was sought from the authors of the instruments. After seeking permission trans-adaptation was conducted using committee approach (Brislin, 1980). Following two steps were used in the process of translation and adaptation of the study variables.

1. Translation
2. Expert panel committee approach

1. Translation. Three translators, one PhD student (Psychology), and two M.Phil (Psychology) degree holders fluent in the English and Urdu language (bilingual), translated the above mentioned scales. These translators were native speakers of Urdu (the target language) and they were familiar with source culture, as well as with the terminology of the area covered by the instruments and with the recommended techniques for forward translation.

As recommended by Gesinger (1994), translators were the residents in the target country (Pakistan) and had experience in the translation of psychological instruments. For translating and adapting the instruments, while considering the conceptual equivalence/culturally transformed meanings, indirect forward translation method (McKay et al. 1996) was used. However, to avoid lack of conceptual equivalence in translations (Wild et al., 2005), these translators were provided with background information about the conceptual basis of the measures. Translators carried out three independent translations of the instruments in simple clear and comprehensible language. Throughout the adaptation process, translators focused on cross-cultural and conceptual equivalence. After translation, recommended method of committee approach was used to assess the content validity of the translated meanings, and to make sure that the translated version is reflecting the same item content as the original version.

2. Expert panel committee approach. After obtaining three independent translations of the original English version, a consensus version was developed, using committee approach (Brislin, 1980). A committee consisted four (4) bilingual judges, two (2) M.Phil degree holders, One (1) PhD student and one (1) faculty member from National Institute of Psychology, Quaid-i-Azam University, Islamabad, participated in reconciliation of three independent translations. The judges had knowledge of medical /health/psychological concepts. Moreover, they also had experience in instrument development, translation and adaptation.

Items were rephrased according to the cultural/local context. The modifications addressed the indigenous issues. Judges carefully reviewed each item of the translated scales to test the quality of the translation. These judges rated each item in terms of items' match or relevance to the content. Moreover, items were also reviewed with reference to cultural adequacy as well as clarity and common language.

Furthermore, each judge identified and resolved the inadequate expressions/concepts of the translation. Moreover, in order to resolve the discrepancies and refine the translations judges asked questions from the translators (when needed) regarding some words or expressions. In the discussions, each translator articulated the reasons for suggested changes or improvements in the original versions. Only those translations, that were rated as strongly relevant by all the judges were finalized. Following modifications were made in the instruments.

Physical Well-being Scale

Item 3 (Original version): Because of my physical condition, I have trouble meeting the needs of my family.

Comments: While adapting the item in the local context—a collectivist culture, a modification of 'other closer people' was made, to make it relevant in the local perspective. Because of the cultural practices or/and religious teaching, it is not unusual in this culture, to find people 'willingly looking after other people (not included in their immediate family), and 'fulfilling their needs', even on regular basis.

Disease-related discrimination Scale

Item 6 (Original version): How often do others avoid you after they learn of your HIV/AIDS status.

Comments: 'Avoiding looking at the person', was added to the item to make the item more relevant in the local perspective, where social rejection is preferably conveyed through non verbal communication.

Item 8 (Original version): How often are you not invited or turned away from social events because of your HIV/AIDS status.

Comments: Two additions were made in the item to make it more understandable in the local perspective. First, the expression 'wedding functions' was added, which is conceptually equivalent to social gatherings in the local context. Secondly, the item was modified by including, 'ignoring the individual on social functions' or 'not appreciating his social interactions with others on social gatherings' etc. These gestures reflecting 'disliking for others' are generally observed in the local context, where due to cultural traditions, it is unavoidable to invite even 'unwanted' individuals on the social gatherings.

Barriers to Care Scale (BACS)

Item 2 (Original version): Medical personnel (e.g. physicians, nurses), who decline to provide direct care to persons with HIV/AIDS.

Comments: The item was modified to include the expression 'treating the patients with hatred', 'denying treatment', or 'avoiding treatment' to convey the discriminatory treatment frequently perceived by those chronically-ill patients who are suffering from stigmatized diseases.

Item 4 (Original version): The lack of transportation to access the services I need.

Comments: ‘Lack of transportation’ was replaced by ‘transportation related problems’, to include the barriers of uncomfortable / unaffordable transportation. This modification was made to make the item relevant for the ailing or/and poor patients.

Item 5 (Original version): The shortage of psychologists, social workers and mental health counselors who can help address mental health issues.

Comments: The word ‘mental health counselor’ was deleted from the item, as in the local context, people generally don’t understand the fine differentiation between ‘psychologists’ and ‘mental health counselors’.

Item 6 (Original version): The lack of psychological support groups for persons with HIV/AIDS.

Comments: In the local perspective, general population do not understand the concept of ‘psychological support groups’, therefore, the conceptual definition of ‘psychological support groups’ was added in the item, to make the item more clear and understandable in the local perspective.

Interpersonal Support Evaluation List (ISEL).

Item 2 (Original version): If I needed help fixing an appliance or repairing my car, there is someone who would help me.

Comments: The word motor cycle, and cycle was also included to make the item relevant for those individuals who might not possess a car, either, because of their non-affordability or lack of parking space at their place, this condition is more common in Pakistan.

Item 5 (Original version): When I feel lonely, there are several people I can talk to.

Comments: Although talking to someone seemingly includes 'meeting' others, however, the item was modified to include the phrase 'meeting with someone', to make it more meaningful in the local perspective, where people prefer meeting others when feeling lonely.

Item 7 (Original version): I often meet or talk with family or friends.

Comments: The words 'relatives and neighbors' were added in the item 7, to make it relevant in the local context—collectivist culture, where it is a regular practice to interact with the relatives and neighbors along with friends and family members.

Item 9 (Original version): If I needed a ride to the airport very early in the morning, I would have a hard time finding someone to take me.

Comments: The word railway station and bus stop was included in this item to make it more related in the local perspective for those individuals who can't afford to travel by air. Besides, this modification was also made to include travelling to those destinations in this country, where there is no airport.

Item 12 (Original version): There are several different people I enjoy spending time with.

Comments: The modification 'meeting and talking' to others, was made as the conceptual equivalence of 'spending time with'.

Item 14 (Original version): If I were sick and needed someone (friend, family member, or acquaintance) to take me to the doctor, I would have trouble finding someone.

Comments: Two modifications were made in the item. First of all, 'in case of worsening of my condition' was added in the item, to make the item relevant for those individuals who are already suffering from some sickness. Secondly, the words relatives and neighbors were included in the item. In the local context—a collectivist culture, relatives or even the neighbors of the ailing patient are expected to accompany the patient to the hospital in an emergency situation.

Item 16 (Original version): If I needed a place to stay for a week because of an emergency (for example, water or electricity out in my apartment or house), I could easily find someone who would put me up.

Comments: 'Staying with someone due to severity of the disease, or for availing the treatment facility' was added in the item to make it understandable for the present population, who prefer staying with someone when facing painful symptoms of the disease / or suffering from side effects of their medical treatment.

This modification will also make the item functional for the patients residing in rural population, who prefer staying with their family members, relatives, friends or even acquaintance, living in the urban areas and/or in the vicinity of the hospital, while seeking medical facilities in the urban areas.

Item 18 (Original version): If I were sick, I could easily find someone to help me with my daily chores.

Comments: Like item 14, to make the item effective for the patients at advanced stage of their disease, the addition, 'in case of worsening of my symptoms' was made.

Item 21(Original version): If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me.

Comments: The phrases 'going for a walk', 'outing', 'visiting someone', or 'dining out' were added as conceptually equivalent of 'going for movie', to make the item relevant for the ailing / bed-ridden patients, who might not be 'interested' or 'able' to go out watching a movie, however, they might be willing to go out of their place (house or hospital) for a while, to visit someone, to go for a walk etc. These activities are generally preferred by the patients, as it consumes less physical energy.

This addition will also be functional for the women and individuals living in rural areas in the local context. Some remote areas do not have the facility of ‘cinema’, and even if it is there, ‘going to cinema’ is considered tabooed for women, even if they are accompanied by their family members.

Item 23 (Original version): If I needed an emergency loan of $100, there is someone (friend, relative, or acquaintance) I could get it from.

Comments: Two modifications were made in the item: First, the item was modified to include, ‘family members’ (parents/siblings/spouse/kids). In the local context, people prefer asking for loan from the ‘family members’ (instead of friend, relative, or acquaintance), as they perceive it less embarrassing, or ‘not embarrassing at all’ in case of some close relations (e.g., fathers, husbands, brothers etc). Though, it is not uncommon to ask for financial assistance from friends, relatives, or acquaintances as well, if the family members are not financially sound. Secondly, instead of replacing $100 by the equivalent of $100 in 1967, (this is when the original scale was developed), followed by ‘converting the currency’ into local currency, the said amount was trans-adapted as ‘large amount’. It was debated that, the amount of $100 may be perceived differently by individuals with different financial status; therefore, this amount needs to be trans-adapted as ‘large amount’. With this modification, the item may be functional across strata as well as across countries (with different currencies).

Item 25 (Original version): Most people I know do not enjoy the same things that I do.

Comments: The word ‘work’ was added to make the item more understandable in the local context.

Item 26 (Original version): There is someone I could turn to for advice about making career plans or changing my job.

Comments: To make the item more desirable in the local perspective, the item was modified by adding few more options in the item, namely, ‘major change in personal life’, ‘domestic issues’, ‘main decision about starting a treatment plan’ etc. With these additions, this item will be functional for those who are unemployed, self employed, patients who are unable to continue their job on account of their illness, and non-working women.

Item 29 (Original version): If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, etc.).

Comments: Two modifications were made in the item: First of all, the addition of ‘going out of home’ and ‘few days’, made the item relevant for those patients who have to leave their home for receiving medical/surgical treatment from the hospital for a short or long span of time.

Secondly, the words in parentheses (i.e., plants, pets, garden, etc.) were dropped from the item. In the local context, plants, pets, garden are either possessed by the individuals residing in rural areas, or those individuals in urban areas who belong to high socio-economic status.

Item 34 (Original version): No one I know would throw a birthday party for me.

Comments: The conceptual equivalence of 'throwing a party' was added to make the item relevant / understandable for those residing in rural areas, belonging to lower socio-economic status etc. However, 'birthday party' was not excluded from the item.

Item 35 (Original version): It would be difficult to find someone who would lend me their car for a few hours.

Comments: The word, motor cycle, cycle and 'any expensive item/appliance' was added to the item to make it more relevant for the individuals from all social strata.

Engagement Coping Scale

Item 4 (Original version): I tried to get emotional support from friends and relatives.

Comments: The item was modified by including 'support from family'. In local context, like other collectivist cultures, people generally prefer turning to their family members for emotional support. Though, friends and relatives are also approached for seeking emotional support in the local context.

After trans-adapting all the instruments, their psychometric properties were assessed in phase-II of the study.

Sample

The translated /adapted Urdu version of the instruments were administered to a sample of ninety chronically-ill patients with age range of 20-75 years, comprising HIV/AIDS (*n* = 35) and cancer (*n* = 55) patients. Among HIV/AIDS patients 60 % (*n* = 21) were females, and 40 % (*n* = 14) were males, whereas 41.8 % (*n* = 23) cancer patients were females, and 58.2 % (*n* = 32) cancer patients were male. Age range of cancer patients was 25-74 years (*M* = 47.82, *SD* = 12.42), whereas age range of HIV/AIDS patients was 20-75 years (*M* = 40.51, *SD* = 13.38).

Procedure

For the present research, a sample of cancer patients was selected from Pakistan Institute of Medical Sciences (PIMS) Islamabad, and Nuclear Oncology and Radiotherapy Institute (NORI) Islamabad. Asymptomatic stage cancer patients were out door patients, whereas, symptomatic stage cancer patients were approached in the hospital, where they were admitted for a short/long span of time for seeking medical or surgical treatment. HIV/AIDS patients were taken from New Light AIDS Control Awareness Group, Non-governmental organization, (NGO) at Rawalpindi and Lahore. In this organization, these patients were registered as ‘members’.

For accessing the HIV/AIDS patient, various government and Non Government Organizations (NGOs), were approached with the departmental permission (Annexure Q). These organizations, that were working for the HIV/AIDS patients’ awareness programs, either bluntly refused to provide access to the HIV/AIDS patients, or put the condition to interview the participants in their presence, or demanded the current research synopsis including the details of the research design as well as the questionnaires to be administered to the research participants. It is pertinent to mention here, that the said organizations were themselves involved in making research projects on HIV/AIDS patients, and seeking funding from the national and international institutions for conducting the research.

After the struggle of many months, finally, New Light AIDS group, a non government organization, agreed to provide access to HIV/AIDS patients for the current research.

For the data collection, first of all, verbal approval was obtained from the concerned administrative staff of the said hospital / NGO, respective medical staff helped in selecting the sample and in providing the relevant medical information about the patients.

Each subject was approached individually in the hospital / NGO. The purpose and requirements of the study were explained to the subjects. Participations were told that the information obtained from them will remain confidential and will be used only for research purposes and that they could discontinue participation at any time. The verbal consent of the patients was taken before test administration. The research instruments and demographic information sheet were individually administered to the chronically-ill patients. Subjects were told that it will take approximately 45–50 minutes to provide information on the study variables. Respondents were asked to carefully respond to each item according to the instructions. Anonymity of the participants was maintained.

Assessment Instruments

Following is the description of the scales that were used in the study.

1. The Physical Well-being Scale. Urdu translated version of **t**he Physical Well - being was used to measure physical well-being among cancer and HIV/AIDS patients. This scale was originally a sub-scale of FAHI (Functional Assessment of

Human Immunodeficiency virus infection) quality of life instrument, developed by Cella, McCain, Peterman, Mo, and Wolen (1996). This scale consisted of seven items (sample items, I experience pain, I have nausea), rated on 5-point ratio scale ranging from 0 (Never) to 4 (Always). High scores on this scale indicated low level of physical well-being and vice versa.

2. Disease-related Discrimination Scale. Urdu translated version of Disease-related stigma (Heckman et al. 1998) was used for present study. It is a 12-items scale that measures stigma and discrimination due to patient's disease status. This scale was rated on four point rating scale ranging from Never (1) to Often (4). Present study measured disease-related discrimination in terms of scores of respondents on this scale. High scores on this scale reflected disease-related discrimination and vice versa.

3. Barriers to Care Scale (BACS). The Urdu translated version of BACS, originally developed by Heckman, et al. (1998) was used to measure problem severity of various geographical, psycho-social, and resource related barriers to service provision among people living with chronic illnesses. These items measured barriers to care using a 4 point Likert type anchor, ranging from 1(No problem at all) to 4(major problem), indicating the extent to which each listed barrier made it difficult for them to receive health care and social services (Sample items: long distances to medical personnel, and lack of transportation). This scale originally consisted of thirteen items; however, present study used only those eight items that measured geography/distance, medical, psychological service and personal resources barriers. The present study measured barrier to care in terms of scores of respondents on

BACS. High scores on overall scale indicated high level of barriers to care and vice versa.

4. Brief Religious Coping Scale (RCOPE). The Urdu translated version of Brief religious coping scale (RCOPE) originally developed by Pargament et al. (1998), consists of two patterns of religious coping, namely positive religious coping and negative religious coping, measured through 14 items. Present study used seven items of positive religious coping to assess positive religious coping strategies among chronically-ill patients. Present study measured positive religious coping in terms of scores of respondents on 7-items of Positive Religious Coping. Sample item: sought God’s love and care, or focused on religion to stop worrying about my problems. Positive Religious Coping Scale was rated on a 4-point continuum ranging from 1(Not at all) to 4 (A great deal) reflecting the degree to which patients made use of various positive religious coping methods to deal with their illness. High scores on the scale reflected high level of positive religious coping and vice versa.

5. Engagement Coping Scale. The Urdu translated version of Engagement Coping scale is originally a sub scale of Coping scale (Boberg et.al., 1995), that consists two styles of coping namely, engagement coping and disengagement coping. Present study used 8-items of Urdu translated version of engagement coping to assess the degree of engagement coping patients have been using in response to stress associated with ‘living with HIV/AIDS or cancer’. (Sample item, I made a plan of action). Items of this subscale were rated on a 4-point Likert scale 1(strongly disagree) to 4 (strongly agree). This study measured engagement coping in terms of scores of respondents on Engagement Coping employed in the previous seven days to cope with the most significant life stressor. Higher scores indicated greater use of engagement coping in response to illness related distress and vice versa.

6. Interpersonal Support Evaluation List (ISEL) – General Population. The Urdu translated version of ISEL Scale originally developed by Cohen, Mermelstein, Kamarck, and Hoberman (1985) is a multidimensional 40 items scale, with four domains namely: Appraisal Scale, Tangible Scale, Belonging Scale, and Self-esteem Scale. Forty items of ISEL were rated on a 4-point ratio scale 0 (definitely false) and 3 (definitely true). Present study measured perceived availability of social support in terms of scores on ISEL Scale. High scores on this scale indicated high level of perceived availability of social support and vice versa.

7. Beck Depression Inventory. The Urdu translated version of BDI originally developed by Beck and Steer, (1993) and adapted in Urdu by Khan (1996) was used in present study to assess depression among cancer and HIV/AIDS patients. It is a 21-item-self report instrument, designed to assess cognitive, behavioral, affective, and somatic components of depression. Items of BDI were rated on a 4-point ratio scale, ranging from 0 (minimum) to 3 (maximum). High scores on BDI show high level of depression and vice versa.

RESULTS

Table 1

Descriptive statistics and Alpha reliability coefficients for the study variables (N = 90)

Variables	*M*	*SD*	Alpha Coefficients	Potential Range	Actual Range	Skewness
PW	2.85	.50	.79	0-4	1.71-4.00	.07
DD	2.57	.45	.85	1-4	1.75-3.33	-.33
BACS	2.68	.56	.81	1-4	1.62-3.88	-.27
PRC	2.49	.82	.91	1-4	1.00-4.00	-.06
EC	2.49	.78	.89	1-4	1.00-3.88	-.23
PSS	1.61	.64	.95	0-3	.55-2.80	-.00
BDI	1.44	.67	.95	0-3	.33-2.67	.32

Note. PW = Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support, and BDI = Beck Depression Inventory

Table 1 is reflecting descriptive statistics for all study variables. This table shows maximum mean value for PW (2.85) and minimum mean value for BDI (1.44). This table also indicates the alpha reliability values depicting maximum alpha coefficient value for PSS (.95) and BDI (.95), and minimum alpha coefficient value for PW (.79). Skewness for the scale scores (.00 to -.33) indicates that data are normally distributed.

Table 2

Descriptive statistics and Alpha reliability coefficients for the study variables in HIV/AIDS sample (n = 35)

Variables	*M*	*SD*	Alpha Coefficients	Potential Range	Actual Range	Skewness
PW	2.60	.45	.77	0-4	1.71-3.43	-.13
DD	2.50	.45	.84	1-4	1.75-3.25	-.33
BACS	2.61	.58	.81	1-4	1.62-3.50	-.42
PRC	2.54	.85	.89	1-4	1.00-4.00	.03
EC	2.59	.71	.87	1-4	1.50-3.88	-.04
PSS	1.53	.64	.95	0-3	.62-2.55	.26
BDI	1.31	.59	.93	0-3	.52-2.67	.89

Note. PW = Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support, and BDI = Beck Depression Inventory

Table 2 indicating descriptive statistics for all study variables, reflects maximum mean value for BACS (2.61) and minimum mean value for BDI (1.31). This table also depicts alpha reliability values, reflecting maximum alpha coefficient value for PSS (.95) and minimum alpha coefficient value for PW (.77). Skewness (.03 to .89) for all the scale scores was within normal range.

Table 3

Descriptive statistics and Alpha reliability coefficients for the study variables in cancer patients (n = 55)

Variables	*M*	*SD*	Alpha Coefficients	Potential Range	Actual Range	Skewness
PW	2.99	.48	.74	0-4	2.00-4.00	.12
DD	2.61	.45	.85	1-4	1.75-3.33	-.34
BACS	2.73	.55	.83	1-4	1.62-3.88	-.14
PRC	2.46	.81	.93	1-4	1.29-3.71	-.14
EC	2.43	.83	.91	1-4	1.00-3.50	-.25
PSS	1.66	.63	.95	0-3	.55-2.80	-.17
BDI	1.51	.71	.95	0-3	.33-2.67	.02

Note. PW = Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support, and BDI = Beck Depression Inventory

Table 3 is depicting the descriptive statistics for the instruments measuring study variables. Maximum mean value was found for PW (2.99), whereas, minimum mean value was reported for BDI (1.51). This table also reflects the alpha reliability values showing maximum alpha coefficient value for PSS (.95) and BDI (.95) and minimum alpha coefficient value for PW (.74). Skewness values (.02 to -.34) were within the normal limits for the present data set.

Tables 4-10 present item-to-total correlation ranges for all the measures of present study, in the overall sample, HIV/AIDS patients and cancer patients.

Table 4

Item-total Correlation of Urdu version of Physical Well-being Scale

Item No	Overall sample ($N = 90$)	HIV/AIDS sample ($n = 35$)	Cancer sample ($n = 55$)
1	.75***	.68***	.73***
2	.56***	.55***	.55***
3	.66***	.51***	.67***
4	.66***	.69***	.61***
5	.67***	.63***	.65***
6	.72***	.77***	.66***
7	.61**	.68**	.56***

**$p < .01$, ***$p < .001$

Table 4 indicates the results of item-to-total correlation in the total data set. Each item of Physical Well-being scale is showing a significant positive correlation with the total score in overall sample, HIV/AIDS sample and cancer sample, respectively.

Table 5

Item-total Correlation of Urdu version of Disease-related Discrimination scale

Item No	Overall sample (*N* = 90)	HIV/AIDS sample (*n* = 35)	Cancer sample (*n* = 55)
1	.73**	.76**	.71**
1	.58**	.62**	.56**
2	.71**	.75**	.68**
2	.67**	.59**	.69**
3	.63**	.58**	.67**
3	.77**	.76**	.77**
4	.55**	.55**	.55**
4	.63**	.62**	.65**
5	.69**	.69**	.71**
5	.58**	.48*	.64**
6	.46**	.59**	.40*
6	.67**	.71**	.66**

$*p < .01$, $**p < .001$

Table 5 reflects the significant positive correlation of each item of Disease-related Discrimination with the total score in overall sample, HIV/AIDS sample and cancer sample respectively.

Table 6

Item-total Correlation of Urdu version of Barriers to Care Scale

Item No	Overall sample *(N = 90)*	HIV/AIDS sample *(n = 35)*	Cancer sample *(n = 55)*
1	.90*	.88*	.93*
2	.43*	.48*	.57*
3	.87*	.84*	.90*
4	.89*	.85*	.93*
5	.72*	.77*	.68*
6	.85*	.86*	.85*
7	.84*	.86*	.81*
8	.85*	.88*	.83*

*$p < .001$

Table 6 depicts significant positive correlation of each item of BACS with the total score in overall sample, HIV/AIDS sample and cancer sample respectively.

Table 7

Item-total Correlation of Urdu version of Positive Religious Coping Scale

Item No	Overall sample (*N* = 90)	HIV/AIDS sample (*n* = 35)	Cancer sample (*n* = 55)
1	.80**	.85**	.76**
2	.84**	.78**	.84**
3	.84**	.81**	.84**
4	.79**	.78**	.81**
5	.82**	.84**	.87**
6	.85**	.64**	.88**
7	.87**	.76*	.88*

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

Table 7 indicates item-to-total correlation of each item of Positive Religious Coping Scale with the total score. Significant positive correlation of each item of Positive Religious Coping Scale was found with the total score in overall sample, HIV/AIDS sample, and cancer sample respectively.

Table 8

Item-total Correlation of Urdu version of Engagement Coping Scale

Item No	Overall sample (*N* = 90)	HIV/AIDS sample (*n* = 35)	Cancer sample (*n* = 55)
1	.83*	.79*	.86*
2	.79*	.71*	.82*
3	.74*	.61*	.79*
4	.67*	.62*	.69*
5	.77*	.76*	.78*
6	.83*	.84*	.84*
7	.77*	.83*	.74*
8	.72*	.65*	.75*

*$p < .001$

Table 8 is reflecting significant positive correlation of each item of Engagement Coping Scale with the total score in overall sample, HIV/AIDS sample and cancer sample respectively.

Table 9

Item-total Correlation of Urdu version of Interpersonal Support Evaluation List (ISEL) Scale

Item No	Overall sample (*N* = 90)	HIV/AIDS sample (*n* = 35)	Cancer sample (*n* = 55)
1	.71**	.84**	.66*
2	.58**	.72**	.48**
3	.63**	.60**	.65**
4	.49**	.50**	.55**
5	.75**	.81**	.71**
6	.55**	.53**	.57**
7	.50**	.40**	.56*
8	.53**	.41**	.61**
9	.69**	.75**	.71**
10	.63**	.45**	.74**
11	.55**	.69**	.49**
12	.56**	.55**	.56**
13	.52**	.44**	.57*
14	.62**	.86**	.43**
15	.41**	.46**	.40**
16	.53**	.62**	.45**
17	.65**	.77**	.57**
18	.56**	.63**	.53**
19	.60**	.84**	.44*
20	.65**	.78**	.59**
21	.61**	.45**	.74**
22	.68**	.62**	.72**
23	.50**	.43**	.56**

Continued…

Item No	Overall sample (*N* = 90)	HIV/AIDS sample (*n* = 35)	Cancer sample (*n* = 55)
24	.55**	.69**	.44**
25	.56**	.59**	.52*
26	.52**	.51**	.53**
27	.71**	.61**	.78**
28	.54**	.45**	.61**
29	.58**	.55**	.60**
30	.60**	.70**	.62**
31	.54**	.57**	.60*
32	.58**	.64**	.54**
33	.53**	.48**	.59**
34	.62**	.49**	.70**
35	.55**	.56**	.54**
36	.45**	.47**	.50**
37	.53**	.57**	.49*
38	.52**	.68**	.43**
39	.59**	.64**	.57**
40	.63**	.67**	.63***

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

Table 9 is showing the findings of item analysis. Each item of Interpersonal Support Evaluation List Scale has been found reflecting a significant positive correlation with the total score in the overall sample, HIV/AIDS sample and cancer sample respectively.

Table 10

Item-total Correlation of Urdu version of Beck Depression Inventory

Item No	Overall sample (*N* = 90)	HIV/AIDS sample (*n* = 35)	Cancer sample (*n* = 55)
1	.56**	.43**	.66**
2	.65**	.55**	.67**
3	.79**	.74**	.82**
4	.68**	.71**	.66**
5	.77**	.69**	.80**
6	.82**	.74**	.87**
7	.69**	.76**	.64**
8	.71**	.57**	77**
9	.79**	.75**	.80**
10	.83**	.76**	.86**
11	.78**	.70**	.82**
12	.80**	.76**	.81**
13	.74**	.67**	.77**
14	.66**	.62**	.67**
15	.72**	.59**	.85**
16	.68**	.61**	.72**
17	.58**	.58**	.61**
18	.60**	.60**	.63**
19	.61**	.55**	.65**
20	.69*	.71**	.70**
21	.57**	.55**	.57**

*$p < .01$, **$p < .001$.

Table 10 indicates significant positive correlation of each item of BDI with the total score of this scale in overall sample, HIV/AIDS sample and cancer sample respectively. Item-to-total correlation of Item 21 of BDI, (translated in phase-I of the present study) was also significantly positively correlated (.57) to the overall score of BDI, depicting the consistency of this item with the overall scale, suggesting the appropriateness of the item, and that this item is also tapping the same construct (i.e., depression).

Table 11

Pearson correlation among study variables (N = 90*)*

Variables	1	2	3	4	5	6	7
1. PW	-	.48**	.48**	-.34**	-.35**	-.27**	.39**
2. DD		-	.59**	-.39**	-.28**	-.32**	.48**
3. BACS			-	-.30**	.18	-.25**	.39**
4. PRC				-	.69**	.52**	-.71*
5. EC					-	.65**	-.74**
6. PSS						-	-.53**
7. BDI							-

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

Note. PW = Poor Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support, and BDI = Beck Depression Inventory

Table 11 is showing correlation matrix reflecting the inter-correlation among the study variables. Zero-order Pearson correlations were computed to examine the relationship between stressor variables (poor physical well-being, disease-related discrimination and barriers to care) and depression scores, as well as moderator variables (positive religious coping, engagement coping and perceived social support) and depression scores. The stressor variables are positively significantly related with BDI, whereas, the moderator variables are inversely significantly related with BDI.

The stressor variables are significantly positively correlated with each other; similarly, moderator variables are also significantly positively related with each other.

The stressor variables (PW and DD) were significantly negatively related to all three moderating variables (PRC, EC, PSS), whereas, one stressor variable (BACS) was significantly negatively related to two moderating variables (PRC & PSS), and positively correlated with one moderating variable (EC), though this correlation was non-significant.

Pearson product-moment correlations involving seven variables revealed significant correlations between stressors and depression as well as moderators and depression.

DISCUSSION

Purpose of study-I was to translate and adapt six instruments (Physical Well-being, Disease-related Discrimination, Barriers to Care, Positive Religious Coping, Engagement Coping, and Interpersonal Support Evaluation List), and item number 21 of the Beck Depression Inventory.

After trans-adaptation of the instruments in phase-I, reliability analysis of the scales were conducted and validation was carried out in phase-II.

Overall, the scale mean scores were found towards upper end, mildly skewed (-.00 to .33), however, within the acceptable range of –2.0 to + 2.0 (Kendall & Stuart, 1958). The psychometric properties of the study variables were addressed. Reliability of the scales was determined by assessing the internal consistency of the scales as computed by Coefficient Alpha (Cronbach, 1984). The internal consistency for all the study variables was acceptable, it exceeded .70 (as depicted in Table 1), as recommended by Nunnally (1978).

All the scales (except the physical well-being scale) depicted good to excellent internal consistency (.81 to .95), physical well-being scale, however, reflected satisfactory internal consistency, as shown by its Alpha Coefficient value (.79). Evidence of internal consistency of the scales was further obtained by assessing the item-to-total correlation of the scales (Table 4-10). It can be readily observed that all items had fairly high significant correlations (.40 to .93) with the scales to which they were originally assigned (Nunnally, 1967).

As, “it is ordinarily necessary to evaluate construct validity by integrating evidence from many different sources” (Cronbach & Meehl, as cited in Cooper &

Pervin, 1998, p. 140), therefore, present study obtained the evidence of construct validity from the convergent, and discriminant validity coefficients. Moreover, study-I also found the evidence of concurrent validity.

As shown by patterns of inter-correlations among computed variables (as depicted in table 11), low to moderate correlation (.18 to .39) was observed between scales measuring different construct, whereas, moderate to high correlation (.48 to .69) was observed between the instruments measuring similar constructs. Correlations between theoretically dissimilar scales should be low whereas, the correlations between theoretically similar scales should be high (Trochim, 2006). The moderate to high correlation coefficients between similar constructs is an acceptable evidence for the convergent validity (van Saane, Sluiter, Verbeek, & Frings-Dresen, 2003). There are no strict rules for how high or low, the correlations should be to provide evidence for discriminant and convergent validity, however, the convergent correlations need to be higher than the discriminant ones (Trochim, 2006).

This study also addressed the criterion validity of the scales by correlating the scores of predictor variables (physical well-being, disease-related discrimination, barriers to care, positive religious coping, engagement coping, and perceived availability of social support) with the criterion variables (i.e. depression), both the predictors and criterion variable were measured at the same time. The predictor variables were significantly correlated with criterion variable, as shown by their validity coefficients ranging from .40 to .70, hence, the evidence of criterion validity was obtained.

Evidence of the content validity of the scales was obtained by getting the opinion of judges during committee approach in phase-I of the study. Besides, some affirmative evidence of content validity of the scales was also obtained by the item-to-total correlation of the scales.

In study-I, significant evidence of reliability of the scales was obtained by assessing the coefficients Alpha and item-to-total correlation of the scale scores, whereas, significant evidences of convergent, discriminant, and criterion validity was demonstrated, by analyzing the correlation coefficients among the scales measuring study variables.

These findings therefore support the sufficient evidence of reliability as well as validity, and show that overall the psychometric properties of the said instruments are quite satisfactory and they can be used for hypotheses testing in study-II.

Chapter-IV

STUDY-II (MAIN STUDY)

The main objective of the study-II was to examine the moderating role of positive religious coping, engagement coping and perceived social support in the stress-distress relationship among chronically-ill patients. The additional objective of present research was to investigate the difference between stress appraisal, coping strategies and perceived availability of social support with reference to gender, locale, type of disease, and stages of disease.

Sample

A purposive sample of (N = 330) chronically-ill patients participated in the study. These participants (51.5 % men and 48.5% women) were on average 45.46 years of age (SD = 11.05). A total of 23.6 % (n = 78) of participants were HIV/AIDS patients, whereas 76.4 % (n = 252) were cancer patients, 63% had progressed to symptomatic stage, whereas, 37 % of participants were at asymptomatic stage. Fifty five (55.5 %) percent of participants were rural residents, whereas, 44.5% patients were residing in urban areas.

Procedure

For this study cancer patients were approached at Pakistan Institute of Medical Sciences (PIMS), Islamabad, and Nuclear Oncology and Radiotherapy Institute

(NORI) Islamabad. Asymptomatic stage cancer patients were out door patients, whereas symptomatic stage cancer patients were hospitalized for short / long span of time for medical or surgical treatment.

Sample of HIV/AIDS patients was taken from New Light AIDS Control Awareness Group, a Non-governmental organization, at Rawalpindi and Lahore, an organization, where these patients were registered as ‘members’.

After seeking the permission for conducting the study from the hospitals / and the said organization, participants were approached. During the initial contact, the study was described in detail. Participants of this study were informed that the information obtained through this study would remain confidential and it will only be used for research purposes. They were also ensured that they could discontinue participation at any time. After participants provided their verbal informed consent, participants were asked to provide required information on demographic sheet and to complete the questionnaire consisting seven scales used in Study-I (Physical Well-being, Disease-related Discrimination, Barriers to Care, Positive Religious Coping, Engagement Coping, Interpersonal Support Evaluation List and Beck Depression Inventory). Participants were asked to indicate how often statements of the questionnaires applied to them. Subjects anonymously completed the measures. The participants took approximately 45-50 minutes to complete self-administered instruments. Medical information regarding their disease status was sought from their medical record files.

RESULTS

Descriptive statistics were used to describe scales mean, standard deviation, and alpha reliability coefficients. Pearson correlation coefficients were calculated to examine the relationship between the variables (Physical well-being, disease-related discrimination, barriers to care, positive religious coping, engagement coping, perceived social support and depression). Multiple regression analyses were conducted to test hypotheses examining associations between stress (Poor physical well-being, disease-related discrimination, and barriers to care) and distress relationship (depression) as well as moderators (Positive religious coping, engagement coping and perceived availability of social support) and distress (depression) relationship. Moreover, moderated regression analysis was conducted to test moderating role of positive religious coping, engagement coping and perceived availability of social support between stress and distress relationship among chronically-ill patients. Finally, role of gender, locale, type of disease and stages of disease was explored with reference to stressors, use of coping strategies and perceived availability of social support. All analyses were done with SPSS 16.0 (SPSS Inc, Chicago).

Table 12

Descriptive statistics and Alpha reliability coefficients for the study variables (N=330)

Variables	*M*	*SD*	Alpha Coefficients	Potential Range	Actual Range	Skewness
PW	3.12	.63	.84	0-4	1.57-4.00	-.24
DD	2.64	.57	.89	1-4	1.25-3.67	-.59
BACS	2.79	.51	.72	1-4	1.25-4.00	-.30
PRC	2.46	.94	.93	1-4	1.00-4.00	-.09
EC	2.42	.82	.90	1-4	1.00-4.00	-.03
PSS	1.62	.65	.95	0-3	.12-2.80	-.01
BDI	1.27	.59	.93	0-3	.19-2.71	.28

Note. PW = Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support, and BDI = Beck Depression Inventory

Table 12 is reflecting descriptive statistics for all study variables. Maximum mean value was for PW and minimum mean value was for BDI (1.27). This table also shows the alpha reliability values depicting maximum alpha coefficient value for PSS (.95) and minimum alpha coefficient value for BACS (.72). Skewness index were within acceptable range.

In order to examine the linear relationship among the independent variables and dependent variable, Zero-order Pearson correlations were computed.

Table 13

Pearson correlation among study variables (N = 330)

Variables	1	2	3	4	5	6	7
1.PW	-	.39**	.49**	-.45**	-.34**	-.19**	.38**
2.DD		-	.38**	-.29**	-.27**	-.23**	.32**
3.BACS			-	-.30**	-.25**	-.22**	.28**
4.PRC				-	.66**	.44**	-.67**
5.EC					-	.45**	-.56**
6. PSS						-	-.49**
7.BDI							-

**p <.01

Note. PW = Poor Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support*,* and BDI = Beck Depression Inventory

Table 13 is showing inter-correlation among the study variables. Zero-order Pearson correlations were computed to examine the relationship between stressor variables (poor physical well-being, disease-related discrimination and barriers to care) and depression scores, as well as moderator variables (positive religious coping, engagement coping and perceived availability of social support) and depression scores. The stressor variables (PW, DD and BC) are positively related with BDI, whereas, the moderator variables (PRC, EC and PSS) are inversely related with BDI. Moreover, the stressors variables are positively correlated with each other, (scores of PW were significantly correlated with scores of DD and BACS, similarly, scores of DD were significantly correlated with scores of BACS). Similarly, moderator variables were also significantly related with each other, (scores of PRC were significantly correlated with scores of EC as well as PSS, and the scores of EC were significantly correlated with scores of PSS).

Multiple Regression Analyses. Regression analyses were conducted to examine the hypothesized relationships among variables (Cohen & Cohen, 1983).

To investigate the direct effect of independent variables (stressors) on dependent variable (depression) multiple regression analysis was applied, whereas, moderated regression analysis was conducted to explore interaction effect of moderators on dependent variable. The value of R^2 shows the proportion of variance in the dependent variable accounted for by the set of independent variables, whereas, the value of adjusted R^2 is giving information regarding fitness of model in addition to explaining the proportion of variance in dependent variable accounted for by the set of independent variables. As adjusted R^2 gives a more accurate picture about the fitness of model, therefore, the value of adjusted R^2 was used for interpretation of regression analysis results.

Table 14

Multiple Regression analysis showing the main effects of poor physical well-being, disease- related discrimination and barriers to care in the prediction of depression among chronically-ill patients (N = 330)

Model	*b*	*SE*	*β*	*t*	*p*	Tolerance	*VIF*
Constant	-6.403	4.12		-1.55	.12		
PW	.779	.17	.27	4.56	.0001	.71	1.40
DD	.345	.10	.19	3.33	.001	.80	1.15
BACS	.225	.18	.07	1.24	.22	.72	1.39

Note. b = Unstandardized Coefficients; *SE* = Standard Error; *β* = Standardized Coefficients; PW = Poor Physical Well-being, DD = Disease-related discrimination and BACS = Barrier to Care

Table 14 is displaying the result of regression analysis conducted to test hypotheses 1-3. These hypotheses anticipated positive relationship among independent variables (physical well-being, disease-related discrimination and barriers to care) and dependent variable (depression). In this regression model, scores of depression were regressed on the scores of physical well-being, disease-related discrimination and barriers to care. The resultant regression model (model-II), explained significant variance of 17.5 % ($R^2 = .175$, $p = .0001$) with beta values of ($\beta = .27$, $p = .0001$), ($\beta = .19$, $p = .001$) and ($\beta = .07$, $p = .22$) for poor physical well-being, disease-related discrimination and barriers to care respectively. Hence, Hypotheses 1 and 2 were confirmed that anticipated positive relationship of poor physical well-being and disease-related discrimination with depression.

Table 15

Multiple Regression analysis displaying the main effects of positive religious coping, engagement coping and perceived availability of social support *in the prediction of depression among chronically-ill patients (N = 330)*

Model	*b*	*SE*	*β*	*t*	*p*	Tolerance	*VIF*
Constant	54.78	1.67		32.78	.0001		
PRC	-.93	.10	-.48	-9.23	.0001	.541	1.85
EC	-.27	.02	-.14	-2.68	.008	.535	1.87
PSS	-.11	.045	-.22	-5.05	.0001	.766	1.31

Note. b = Unstandardized Coefficients; SE = Standard Error; β = Standardized Coefficients; PRC = Positive religious coping, EC = Engagement Coping and PSS = Perceived availability of Social Support

Table 15 is exhibiting the result of multiple regression analysis. This analysis was conducted to test hypotheses 4-6, which anticipated inverse relationship of positive religious coping, engagement coping and perceived availability of social support with depression. In this multiple regression analysis, the said variables were entered as predictor variables and depression was entered as outcome variable. The resultant multiple regression model is explaining 51.1 % (R^2 = .511, *p* = .0001) variance with significant beta values (*β* = -.48*, p* = .0001), *β* = -.14, *p* = .008) and (*β* = -.22*, p* = .0001) for religious coping, engagement coping and perceived availability of social support respectively. These findings supported hypotheses 4-6 that anticipated inverse relationship of moderating variables with depression.

Moderated Regression Analysis. Hierarchical moderated regression analysis was used to test the hypothesized moderating effects of moderators beyond the main effects (Cohen & Cohen, 1983). To examine moderating hypotheses separate hierarchical regression analyses were conducted. At the first step criterion (depression) was regressed on predictors (stressors and moderators), then in the second step criterion (depression) was regressed to the interaction term for these two variables viz., stressors x moderators (Aiken & West 1991). The change in R^2 (ΔR^2) after the inclusion of the additional variable (interaction term) explains additional variance in the dependent variable which is due to the interaction effects.

The interaction terms predicting depression are further illustrated in Figures 2-7. Each figure represents the relation between stressors and depression at both high and low levels of moderators. These levels are arrived at by fixing the value of moderators at one standard deviation above and below its mean (Aiken & West, 1991). Visual inspection of the figures will help illustrate the nature of the interaction.

Moreover, the multicollinearity diagnoses were also reviewed for each equation, to find out whether multicollinearity is a serious problem or not. The tolerance and VIF scores for the predictor variables, moderators and interaction terms indicated that multicollinearity was not a serious issue.

Table 16

Moderated Multiple Regression analysis of positive religious coping and poor physical well- being as predictors of depression among chronically-ill patients (N = 330)

Model	*b*	*SE*	*β*	*t*	*p*	Tolerance	*VIF*
(Constant)	39.75	3.81		10.44	.0001		
PW	.29	.13	.10	2.24	.026	.79	1.26
PRC	-1.18	.09	-.62	-13.63	.0001	.79	1.27
PW x PRC	-1.84	.57	-.13	-3.25	.001	.99	1.01

Note. PW = Poor Physical well-being, PRC = Positive religious coping

Table 17

Summary of regression analysis for the model without the interaction term and with the interaction term

Model	*R*	*R²*	*Adj. R²*	*df1*	*df2*	*F*	*p*
Model 1	.679	.461	.458	2	327	139.76	.0001
Model 2	.691	.478	.473	3	326	99.424	.0001

Tables 16 and 17 are displaying the results of moderated regression analysis that was computed to test hypothesis 7a. This hypothesis anticipated moderating impact of positive religious coping in poor physical well-being and depression relationship. To test the moderating effects, in the first step, scores of poor physical well-being (PW) and positive religious coping (PRC) predicting depression were entered into regression equation, followed by the interaction term (PW x PRC) that was entered in the second step.

The resultant regression model (model-II) is reflecting significant moderating effects of positive religious coping as shown by the values of change in R^2. This change in R^2 ($R^2 = .015$) has associated F and p values (F (1, 326) = 10.57, $p = .001$). The significant beta value in Model-2 ($\beta = -.13$, $p = .001$) concludes slope difference, and significant interaction effects. Hence, supporting hypothesis 7a, that anticipated moderating role of positive religious coping in the relationship between poor physical well- being and depression among chronically-ill patients.

The interaction terms predicting depression is further illustrated in Figure 2.

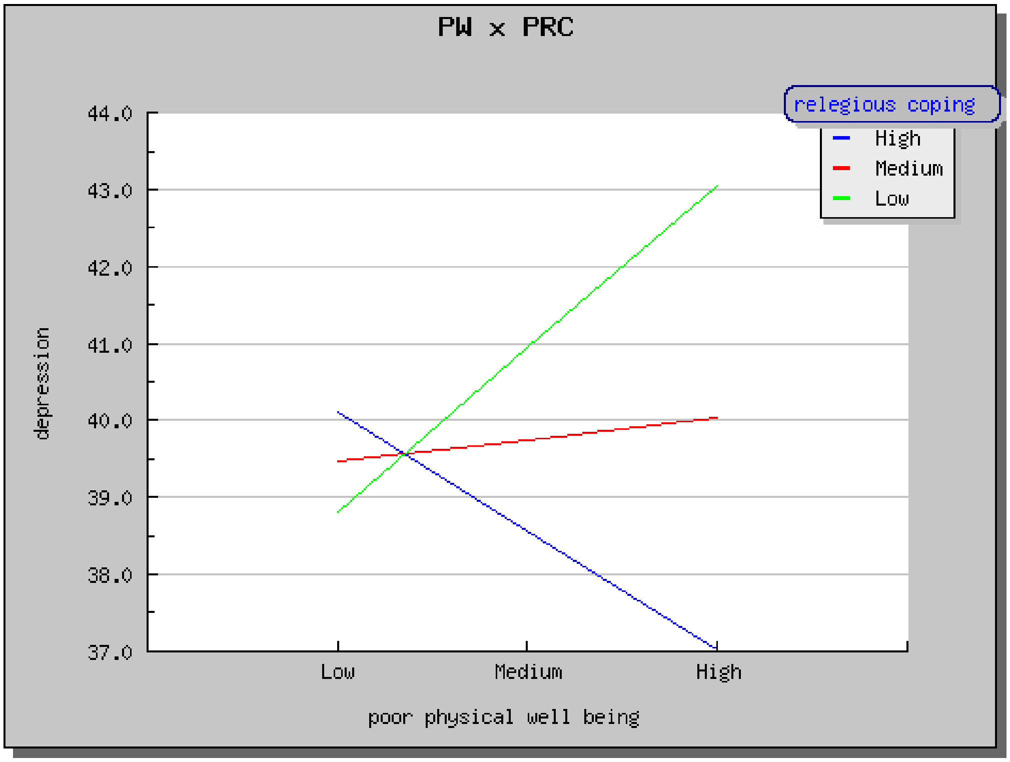

Figure 2. Interaction of religious coping and poor physical well-being on depression.

Figure 2 is reflecting that religious coping significantly moderates the stress-depression relationship. The stress-depression relation is relatively stronger in the case of low religious coping and weaker in the case of high religious coping.

Table 18

Moderated Multiple Regression analysis of positive religious coping and disease-related discrimination as predictors of depression among chronically-ill patients (*N* = 330)

Model	*b*	*SE*	*β*	*t*	*p*	Tolerance	*VIF*
(Constant)	37.58	3.24		11.60	.0001		
DD	.29	.08	.16	3.72	.0001	.88	1.14
PRC	-1.21	.08	-.63	-15.18	.0001	.91	1.09
DD x PRC	-1.89	.53	-.15	-3.61	.0001	.97	1.04

Note. DD = Disease-related discrimination and PRC = Positive religious coping

Table 19

Summary of regression analysis for the model without the interaction term and with the interaction term

Model	*R*	*R²*	*Adj. R²*	*df1*	*df2*	*F*	*p*
Model 1	.685	.469	.466	2	327	144.46	.0001
Model 2	.700	.489	.485	3	326	104.18	.0001

Tables 18 and 19 are reflecting the results of regression analysis that was conducted to test hypothesis 7b, which anticipated moderating role of religious coping in disease-related discrimination and depression relationship. Adding interaction term in the model-I revealed a significant change in R² (.019) with associated F and p values (*F* (1, 326) = 13.01, *p* = .0001), which is showing a significant change due to the interaction term. Significant beta value (*β* = -.15, *p* = .0001) for model-II is indicating a significant slope difference. The results emerged as predicted, hence supporting the hypothesis 7b that anticipated moderating effect of positive religious coping in disease-related discrimination and depression relationship.

The interaction term predicting depression is further illustrated in Figure 3.

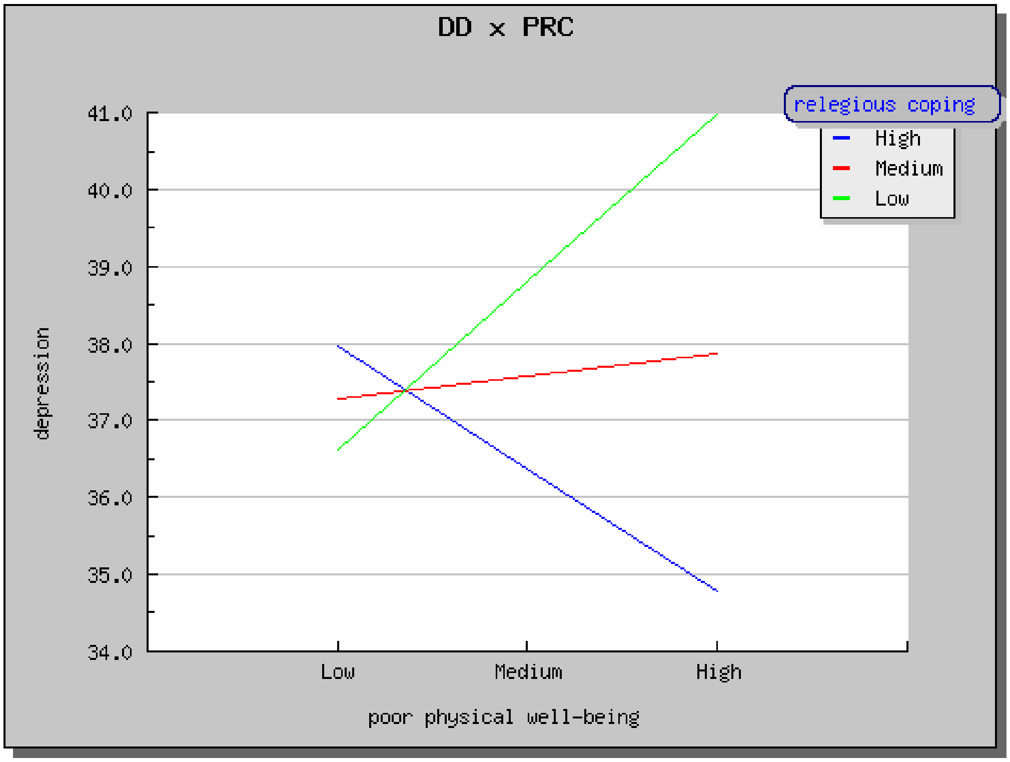

Figure 3. Interaction of positive religious coping and disease-related discrimination on depression.

Figure 3 is indicating that positive religious coping significantly moderates the stress-distress relationship. The stress to depression relationship is relatively weaker in case of high religious coping.

Table 20

Moderated Multiple Regression analysis of positive religious coping and barriers to *care as predictors of depression among chronically-ill patients* (*N* = 330*)*

Model	*b*	*SE*	*β*	*t*	*p*	Tolerance	*VIF*
(Constant)	42.45	3.67		11.57	.0001		
BACS	.25	.13	.08	1.88	.06	.91	1.10
PRC	-.1.24	.08	-.64	-15.18	.0001	.91	1.10
BACS x PRC	-.12	.52	-.01	-.24	.81	.99	1.00

Note. BACS = Barriers to Care scale, PRC = Positive Religious Coping

Table 21

Summary of regression analysis for the model without the interaction term and with the interaction term

Model	*R*	*R²*	*Adj. R²*	*df1*	*df2*	*F*	*p*
Model 1	.678	.460	.456	2	327	139.14	.0001
Model 2	.678	.460	.455	3	326	92.51	.0001

Tables 20 and 21 are showing the moderated regression analyses, which were conducted to examine hypothesis 7c. This hypothesis anticipated moderating effect of positive religious coping in the relationship between barriers to care and depression among chronically-ill patients. Adding interaction terms in the model-I resulted in a non-significant change in R^2. Hypothesis 7c was therefore refuted, which anticipated moderating role of positive religious coping in the relationship between barriers to care and depression.

Table 22

Moderated Multiple Regression analysis of engagement coping and poor physical well- being as predictors of depression among chronically-ill patients (*N* = 330)

Model	*b*	*SE*	*β*	*t*	*p*	Tolerance	*VIF*
(Constant)	30.86	3.91		7.89	.0001		
PW	.60	.13	.21	4.50	.0001	.89	1.13
EC	-.93	.09	-.49	-10.42	.0001	.89	1.13
PW x EC	-1.96	.62	-.14	-3.19	.002	.99	1.00

Note. PW = Poor Physical well-being, EC = Engagement coping.

Table 23

Summary of regression analysis for the model without the interaction term and with the interaction term

Model	*R*	R^2	*Adj.* R^2	*df1*	*df2*	*F*	*p*
Model 1	.595	.354	.350	2	327	89.58	.0001
Model 2	.611	.374	.368	3	326	64.79	.0001

Tables 22 and 23 are reflecting the results of moderated regression analyses. These analyses were conducted to empirically test the assumptions of hypothesis 8a which anticipated the moderating role of engagement coping in the relationship between poor physical well-being and depression. With the addition of interaction term in model-II, significant increment in variance in R^2 ($\Delta R^2 = .027$) with associated F and p value (*F* (1, 326) = 10.18, *p* = .002) was observed. The inclusion of interaction term has brought significant slope difference (*β* = -.14, *p* = .002). Hence the predicted result was borne out for Hypothesis 8a that assumed moderating role of engagement coping in the relationship of poor physical well-being and depression.

The interaction term predicting depression is further illustrated in Figure 4.

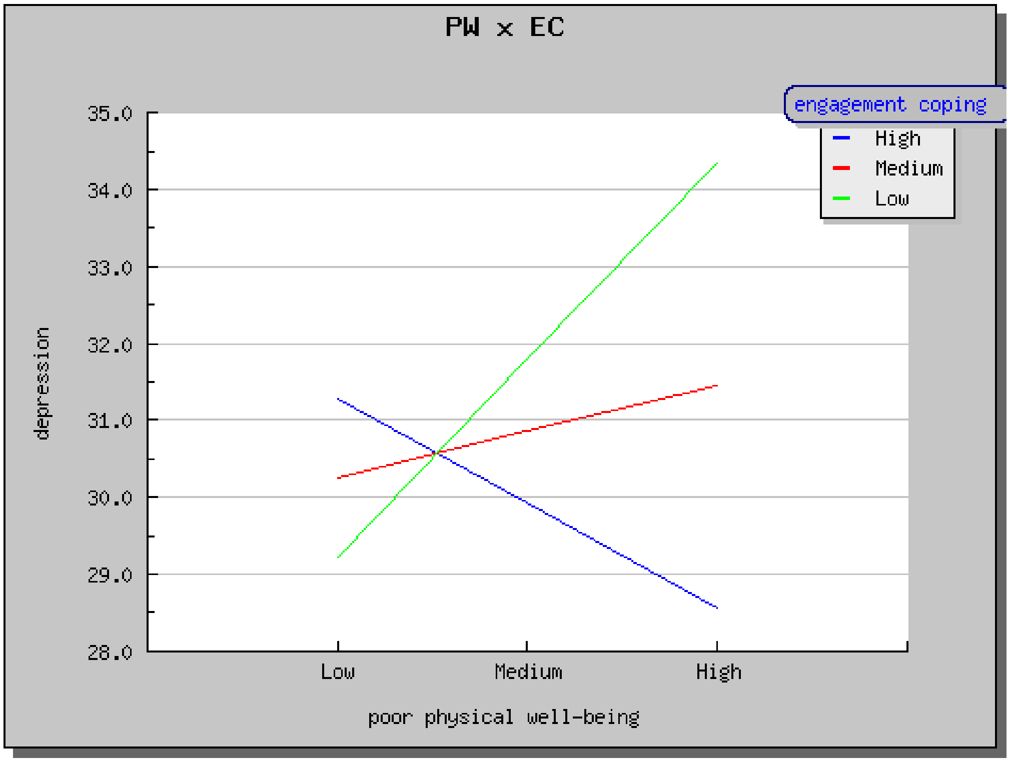

Figure 4. Interaction of engagement coping and poor physical well-being on depression.

Figure 4 exhibits that the relationship between poor physical well-being and depression is mitigated when engagement coping is high relative to when engagement coping is low.

Table 24

Moderated Multiple Regression analysis of engagement coping and disease-related discrimination as predictors of depression among chronically-ill patients (N = 330)

Model	*b*	*SE*	*ß*	*t*	*p*	Tolerance	*VIF*
(Constant)	32.91	3.72		8.86	.0001		
DD	.38	.09	.20	4.37	.0001	.89	1.12
EC	-.97	.09	-.50	-10.91	.0001	.92	1.08
DD x EC	-1.58	.59	-.12	-2.69	.007	.96	1.04

Note. DD = Disease-related discrimination and EC = Engagement coping

Table 25

Summary of regression analysis for the model without the interaction term and with the interaction term

Model	*R*	*R²*	*Adj. R²*	*df1*	*df2*	*F*	*p*
Model 1	.586	.343	.339	2	327	85.29	.0001
Model 2	.598	.357	.351	3	326	60.37	.0001

Tables 24 and 25 are reflecting the results of regression analysis, which was conducted to test hypothesis 8b. This hypothesis anticipated moderating role of engagement coping in disease-related discrimination and depression among chronically-ill patients. Adding the interaction term in the model-II revealed a significant change in R^2 (.012). This change in R^2 has associated F and p value (*F* (1, 326) = 7.27, *p* = .007), reflecting additional variances in R^2 due to the inclusion of interaction term. Significant regression weights (*ß* = -.12*, p* =.007) are indicating slope difference. Hypothesis 8b was therefore substantiated that anticipated moderating effect of engagement coping in disease-related discrimination and depression relationship.

The interaction term predicting depression is further illustrated in Figure 5.

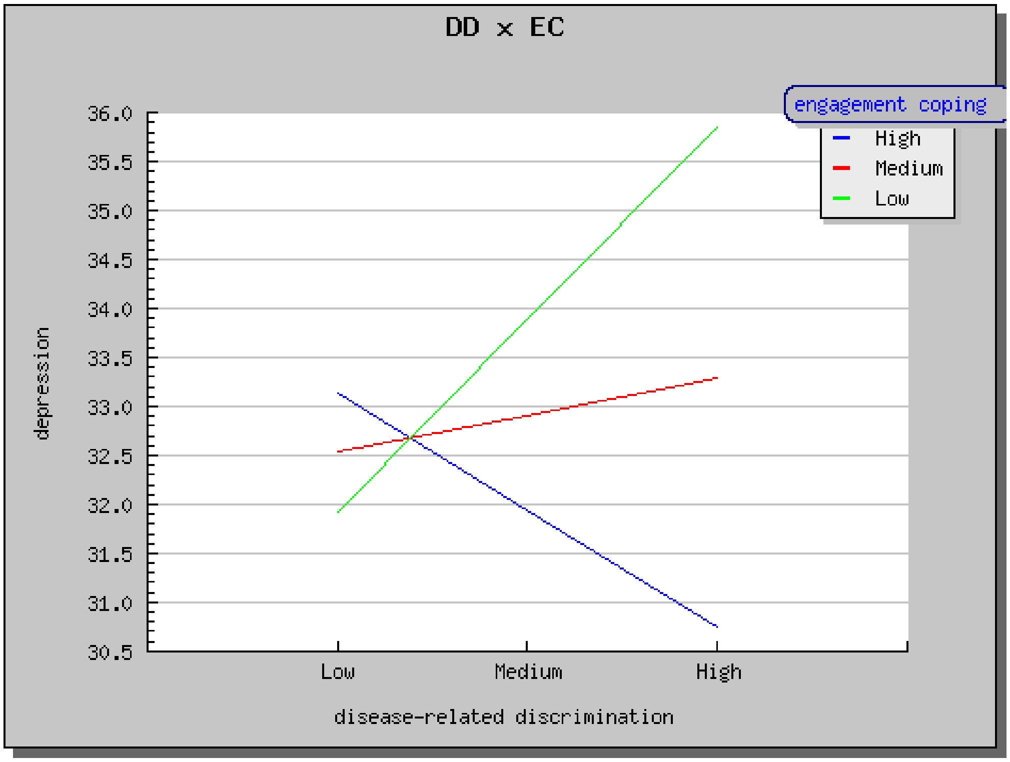

Figure 5. Interaction of engagement coping and disease-related discrimination on depression.

Figure 5 indicates that stress-depression relationship is weaker in case of high engagement coping.

Table 26

Moderated Multiple Regression analysis of engagement coping and barriers to care as predictors of depression among chronically-ill patients (N = 330)

Model	*b*	*SE*	*β*	*t*	*p*	Tolerance	*VIF*
(Constant)	35.49	4.05		8.77	.0001		
BACS	.47	.14	.15	3.26	.001	.94	1.07
EC	-1.01	.09	-.52	-11.25	.0001	.94	1.07
BACS x EC	-.94	.58	-.07	-1.61	.11	.99	1.00

Note. BACS = Barriers to care scale and EC = Engagement coping

Table 27

Summary of regression analysis for the model without the interaction term and with the interaction term

Model	*R*	*R²*	*Adj. R²*	*df1*	*df2*	*F*	*p*
Model 1	.577	.333	.329	2	327	81.69	.0001
Model 2	.582	.338	.332	3	326	55.59	.0001

Tables 26 and 27 are displaying the moderated regression analysis, conducted to test hypothesis 8c that anticipated moderating role of engagement coping in barriers to care and depression relationship. Adding interaction term in Model-I did not result in a significant change in R^2. Hypothesis 8c was therefore not substantiated that anticipated significant moderating effect of engagement coping in the relationship between barriers to care and depression.

Table 28

Moderated Multiple Regression analysis of perceived availability of social support and poor physical well-being as predictors of depression among chronically-ill patients (N = 330)

Model	*b*	*SE*	*β*	*t*	*p*	Tolerance	*VIF*
(Constant)	21.67	3.48		6.23	.0001		
PW	.86	.13	.300	5.58	.0001	.96	1.04
PSS	-.22	.02	-.46	-9.98	.0001	.95	1.06
PW x PSS	-1.84	.60	-.14	-3.05	.002	.98	1.02

Note. PW = Poor Physical well-being, PSS = Perceived availability of social support

Table 29

Summary of regression analysis for the model without the interaction term and with the interaction term

Model	*R*	*R²*	*Adj. R²*	*df1*	*df2*	*F*	*p*
Model 1	.574	.330	.326	2	327	80.48	.0001
Model 2	.590	.348	.342	3	326	58.11	.0001

Tables 28 and 29 are exhibiting the results of moderated regression analysis. This analysis was conducted to test hypothesis 9a that anticipated moderating role of perceived availability of social support in poor physical well-being and depression relationship. Adding interaction term in the model-I resulted in a significant change in R^2 (.016), with associated F and p values (F (1, 326) = 9.29, p = .002). Moreover, value of beta for interaction term (β = -.14, p = .002) is reflecting significant slope difference. Hence, Hypothesis 9a was substantiated that anticipated significant moderating impact of perceived availability of social support in poor physical well-being and depression relationship.

The interaction term predicting depression is further illustrated in Figure 6.

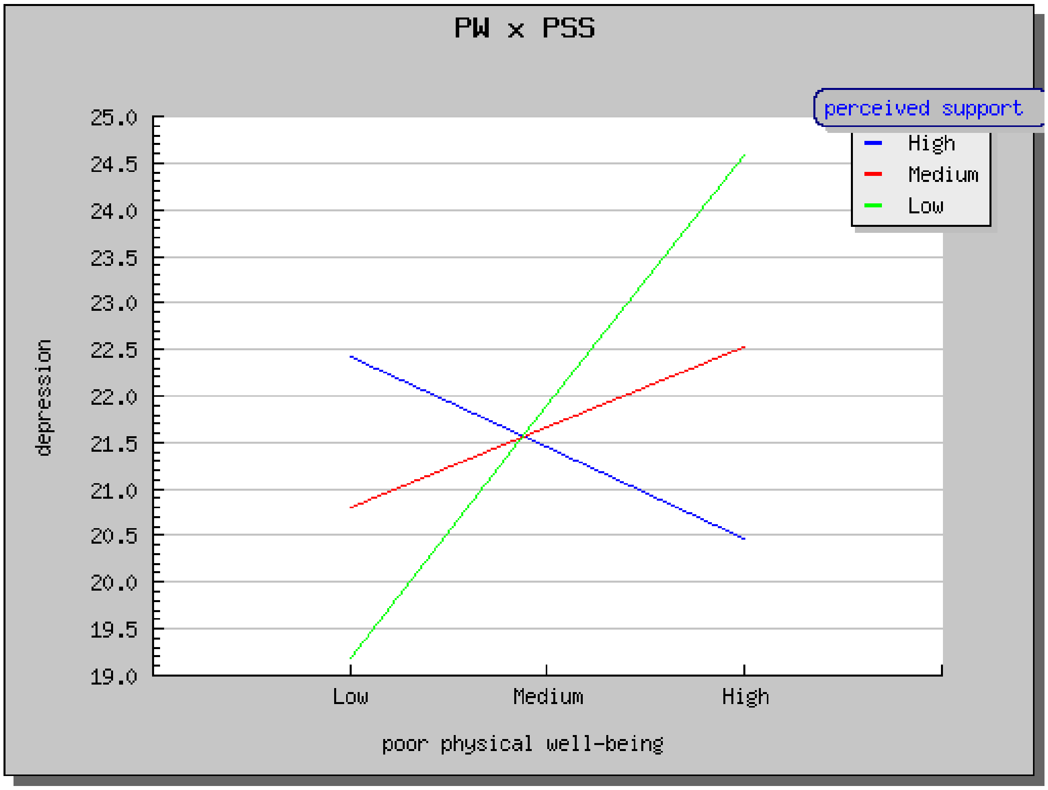

Figure 6. Interaction of perceived availability of social support and poor physical well-being on depression.

Figure 6 indicates that relationship between stress and depression is mitigated when perceived availability of social support is high, relative to when perceived availability of social support is low.

Table 30

Moderated Multiple Regression analysis of perceived availability of social support and disease-related discrimination as predictors of depression among chronically-ill patients (N = 330)

Model	*b*	*SE*	*β*	*t*	*p*	Tolerance	*VIF*
(Constant)	27.34	3.54		7.72	.0001		
DD	.41	.09	.22	4.62	.0001	.94	1.06
PSS	-.22	.02	-.45	-9.33	.0001	.95	1.05
DD x PSS	-.62	.64	-.05	-.97	.33	.99	1.01

Note. DD = Disease-related discrimination and PSS = Perceived availability of social support

Table 31

Summary of regression analysis for the model without the interaction term and with the interaction term

Model	*R*	*R²*	*Adj. R²*	*df1*	*df2*	*F*	*p*
Model 1	.539	.291	.287	2	327	67.06	.0001
Model 2	.541	.293	.286	3	326	45.02	.0001

Tables 30 & 31 are reflecting the results of hypothesis 9b. This hypothesis anticipated moderating impact of perceived availability of social support in disease-related discrimination and depression relationship. Adding interaction terms to the model-I did not result in a significant change in R^2. Hypothesis 9b was therefore not supported by the data.

Table 32

Moderated Multiple Regression analysis of perceived availability of social support and barriers to care as predictors of depression among chronically-ill patients (N = 330)

Model	*b*	*SE*	*β*	*t*	*p*	Tolerance	*VIF*
(Constant)	27.84	3.98		7.00	.0001		
BACS	.57	.15	.19	3.84	.0001	.94	1.06
PSS	-.22	.02	-.46	-9.51	.0001	.95	1.05
BACS x PSS	-1.37	.64	-.10	-2.14	.033	.99	1.01

Note. BACS = Barrier to care scale and PSS = Perceived availability of social support

Table 33

Summary of regression analysis for the model without the interaction term and with the interaction term

Model	*R*	*R²*	*Adj. R²*	*df1*	*df2*	*F*	*p*
Model 1	.525	.276	.271	2	327	62.18	.0001
Model 2	.534	.286	.279	3	326	43.43	.0001

Tables 32 and 33 are exhibiting the results of moderated regression analysis, which was conducted to test hypothesis 9c that anticipated moderating role of perceived availability of social support in barriers to care and depression relationship. The regression Model-II shows significant change in R^2 (.008) with associated F and p values (F (1, 326) = 4.58, p = .033), attributable to the interaction term. The beta value (β = -.10, p = .033) of model-II is depicting significant interaction effect and slope difference. Thus, supporting hypothesis 9c, that anticipated moderating role of perceived availability of social support in the barriers to care and depression relationship.

The interaction term predicting depression is further illustrated in Figure 7.

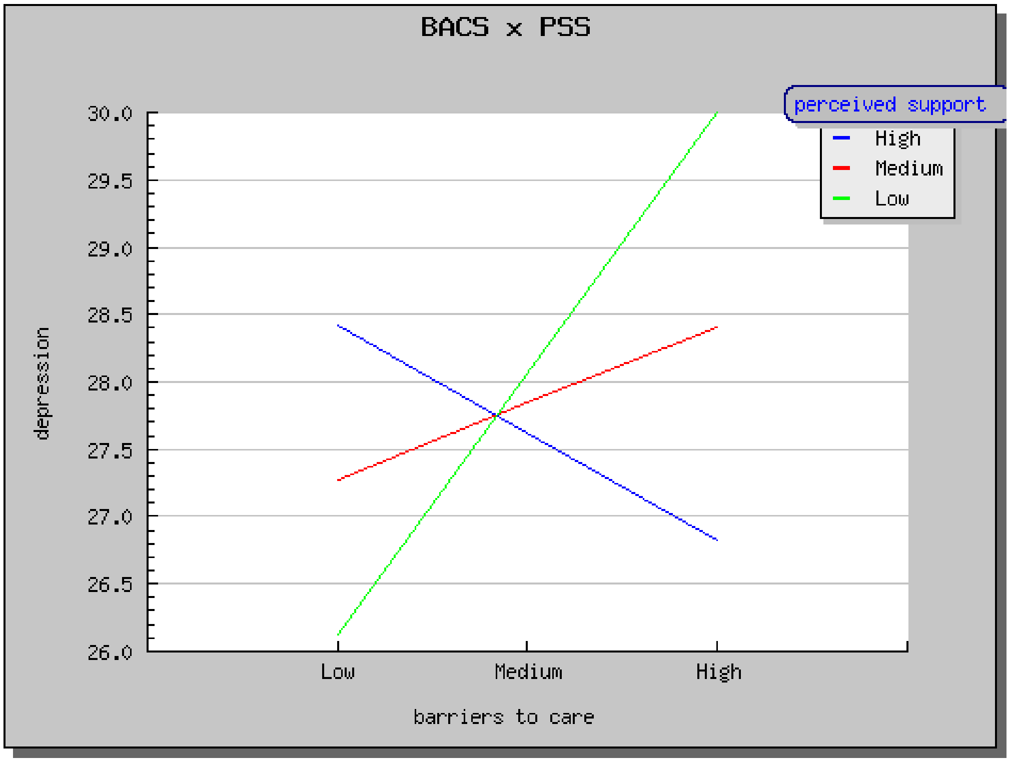

Figure 7. Interaction of perceived availability of social support and barriers to care on depression.

Figure 7 exhibits the moderating impact of perceived availability of social support. The stress-depression relation is weaker in case of high perception of availability of social support.

The fourth objective of the current study was to investigate differences in stressors, coping strategies and perception of availability of social support with reference to gender, locale, disease type and disease stages.

To meet fourth objective, independent t-test were conducted to determine if the means for the male and female patients, rural and urban patients, HIV/AIDS and cancer patients, asymptomatic and symptomatic stage patients, HIV/AIDS asymptomatic and symptomatic stage patients, cancer asymptomatic and symptomatic stage patients, HIV/AIDS male and female patients and cancer male and female patients significantly differed across two samples. Results are reflected in table 34-42.

Table 34

Mean, Standard Deviation and t-values for male and female patients on poor physical well-being, disease-related discrimination, barriers to care, positive religious coping, engagement coping and perceived availability of social support (N = 330)

	Males (*n* = 170)		Females (*n* = 160)						
Variables	*M*	*SD*	*M*	*SD*	*t* (328)	*p*	*95 % CI*		*Cohen's d*
							LL	*UL*	
PW	3.29	.57	2.93	.62	5.46	<.001	.23	.49	.60
DD	2.70	.52	2.57	.60	2.07	.040	.01	.25	.23
BACS	2.86	.50	2.71	.50	2.64	.009	.04	.26	.29
PRC	2.09	.90	2.84	.81	7.98	<.001	-.94	-.57	-.88
EC	2.19	.77	2.66	.79	5.44	<.001	-.64	-.30	-.60
PSS	1.56	.64	1.66	.65	1.43	.155	-.24	.04	-.16

Note. PW = Poor Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support

The results in table 34 indicate that males were significantly high on the scores of poor physical well-being, disease-related discrimination and barriers to care, whereas, females were high on the scores of positive religious coping and engagement coping. However, these two groups did not significantly differ on the scores of perceived availability of social support.

Table 35

Mean, Standard Deviation and t-values for rural and urban patients on poor physical well-being, disease-related discrimination, barriers to care, positive religious coping, engagement coping and perceived availability of social support (N = 330)

	Rural (*n* = 183)		Urban (*n* = 147)						
Measures	*M*	*SD*	*M*	*SD*	*t* (328)	*p*	*95 % CI*		*Cohen's d*
							LL	*UL*	
PW	3.18	.61	3.04	.63	2.08	.04	.01	.28	.23
DD	2.68	.54	2.59	.59	1.38	.17	-.04	.21	.15
BACS	2.98	.43	2.55	.50	8.28	<.001	.33	.54	.92
PRC	2.42	.93	2.50	.94	.75	.451	-.28	.13	-.08
EC	2.42	.80	2.41	.83	.16	.871	-.16	.19	.02
PSS	1.58	.64	1.64	.66	.83	.41	-.20	.08	-.09

Note. PW = Poor Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support

The results in table 35 reflect the scores of rural and urban patients on poor physical well-being, disease-related discrimination, barriers to care, positive religious coping, engagement coping and perceived availability of social support. Rural patients were significantly high on the scores of poor physical well-being and barriers to care as compared to urban patients. However, significant differences were not found in the mean scores of disease-related discrimination, use of coping strategies and perceived availability of social support.

Table 36

Mean, Standard Deviation and t-values for HIV/AIDS and cancer patients on poor physical well-being, disease-related discrimination, barriers to care, positive religious coping, engagement coping and perceived availability of social support (N = 330)

	HIV/AIDS (*n* = 78)		Cancer (*n* = 252)						
Measures	*M*	*SD*	*M*	*SD*	*t* (328)	*p*	*95 % CI*		*Cohen's d*
							LL	*UL*	
PW	3.01	.55	3.15	.64	1.74	.086	-.30	.02	-.23
DD	2.68	.52	2.63	.57	.69	.492	-.09	.19	.09
BACS	2.76	.43	2.80	.53	.52	.601	-.17	.09	-.07
PRC	2.73	.84	2.37	.95	2.98	.003	.12	.59	.39
EC	2.59	.83	2.37	.80	2.08	.04	.01	.44	.27
PSS	1.77	.68	1.56	.63	2.39	.02	.04	.38	.31

Note. PW = Poor Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support

Results in table 36 exhibit the scores of HIV/AIDS and cancer patients on the measures of stressors and moderators. HIV/AIDS patients significantly differed from cancer patients in their high scores on the measures of religious coping, engagement coping and perceived availability of social support.

Table 37

Mean, Standard Deviation and t-values for asymptomatic and symptomatic patients on poor physical well-being, disease-related discrimination, barriers to care, positive religious coping, engagement coping and perceived availability of social support (N = 330)

	Asymptomatic (*n* = 122)		Symptomatic (*n* = 208)						
Measures	*M*	*SD*	*M*	*SD*	*t* (328)	*p*	*95 % CI*		*Cohen's d*
							LL	*UL*	
PW	2.97	.66	3.21	.58	3.27	.001	-.38	-.09	.37
DD	2.56	.62	2.68	.52	1.91	.06	-.25	.01	.22
BACS	2.68	.54	2.85	.48	2.91	.004	-.29	-.06	.33
PRC	2.24	.92	2.58	.92	3.29	.001	-.55	-.14	.38
EC	2.34	.80	2.46	.82	1.28	.200	-.30	-.06	.15
PSS	1.55	.67	1.64	.63	1.26	.21	-.24	.05	.14

Note. PW = Poor Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support

The results in table 37 show that the symptomatic patients were significantly high on the scores of poor physical well-being, barriers to care, and religious coping. However, significant differences were not found in the measures of disease-related discrimination, engagement coping and perceived availability of social support.

Table 38

Mean, Standard Deviation and t-values for asymptomatic and symptomatic HIV/AIDS patients on poor physical well-being, disease-related discrimination, barriers to care positive religious coping, engagement coping and perceived availability of social support (N = 78)

	Asymptomatic (*n* =25)		Symptomatic (*n* = 53)						
Measures	*M*	*SD*	*M*	*SD*	*t* (76)	*p*	*95 % CI*		*Cohen's d*
							LL	*UL*	
PW	2.68	.50	3.17	.51	4.03	<.001	-.74	-.25	-.99
DD	2.56	.55	2.73	.51	1.27	.210	-.43	.09	-.31
BACS	2.60	.47	2.84	.40	2.16	.037	-.46	-.02	-.53
PRC	2.62	.87	2.78	.83	.73	.468	-.57	.27	-.18
EC	2.69	.76	2.54	.87	.76	.451	-.24	.54	.19
PSS	1.63	.73	1.83	.65	1.19	.24	-.56	.14	-.29

Note. PW = Poor Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support

The results in table 38 exhibit that the symptomatic HIV/AIDS patients were significantly high on the scores of poor physical well-being and barriers to care. However, asymptomatic and symptomatic HIV/AIDS patients did not significantly differ on the scores of disease-related discrimination, coping strategies and perception of availability of social support.

Table 39

Mean, Standard Deviation and t-values for asymptomatic and symptomatic cancer patients on poor physical well-being, disease-related discrimination, barriers to care positive religious coping, engagement coping and perceived availability of social support (N = 252)

	Asymptomatic (*n* = 97)		Symptomatic (*n* = 155)						
							95 % CI		
Measures	*M*	*SD*	*M*	*SD*	*t* (250)	*p*	*LL*	*UL*	*Cohen's d*
PW	3.05	.68	3.22	.60	2.06	.04	-.34	-.01	-.27
DD	2.56	.63	2.67	.53	1.44	.151	-.25	.04	- .34
BACS	2.70	.55	2.86	.51	2.25	.03	-.29	-.02	-.53
PRC	2.13	.91	2.52	.95	3.18	.002	-.62	-.14	-.75
EC	2.25	.78	2.43	.80	1.74	.082	-.38	-.02	-.41
PSS	1.53	.66	1.58	.61	.61	.55	-.22	.11	-.14

Note. PW = Poor Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support

The results in table 39 are reflecting the findings of scores on the measures of stressors as well as moderators. Symptomatic cancer patients were significantly high on the perception of poor physical well-being, barriers to care and positive religious coping. However, significant differences were not found on the scores of disease-related discrimination, engagement coping and perceived availability of social support.

Table 40

Mean, Standard Deviation and t-values for male and female HIV/AIDS patients on poor physical well-being, disease-related discrimination, barriers to care, positive religious coping, engagement coping and perceived availability of social support (N = 78)

	Males (*n* = 52)		Females (*n* = 26)						
Measures	*M*	*SD*	*M*	*SD*	*t* (76)	*p*	*95 % CI*		*Cohen's d*
							LL	*UL*	
PW	3.06	.53	2.91	.60	1.06	.29	-.13	.43	.26
DD	2.68	.50	2.67	.58	.08	.93	-.26	.28	.02
BACS	2.75	.41	2.79	.48	.37	-.72	-.27	.18	-.09
PRC	2.76	.86	2.67	.80	.43	.67	-.31	.48	.10
EC	2.53	.80	2.71	.90	.87	.39	-.61	.24	.21
PSS	1.88	.65	1.55	.70	2.01	.05	.000	.67	.49

Note. PW = Poor Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support

The results in table 40 showing that the male HIV/AIDS patients were significantly high on the scores of perceived availability of social support. However, significant differences were not found in the scores of poor physical well-being, disease-related discrimination, barriers to care and coping strategies.

Table 41

Mean, Standard Deviation and t-values for male and female cancer patients on poor physical well-being, disease-related discrimination, barriers to care, positive religious coping, engagement coping and perceived availability of social support (N = 252)

	Males (n =118)		Females (n = 134)						
Measures	*M*	*SD*	*M*	*SD*	*t* (250)	*p*	*95 % CI*		*Cohen's d*
							LL	*UL*	
PW	3.40	.56	2.94	.62	6.09	<.001	.31	.61	.77
DD	2.71	.53	2.55	.60	2.16	.032	.01	.29	.27
BACS	2.91	.53	2.70	.51	3.19	.002	.08	.34	.40
PRC	1.79	.75	2.88	.81	10.99	<.001	-1.28	-.89	1.39
EC	2.04	.70	2.65	.77	6.52	<.001	-.79	-.43	-.83
PSS	1.42	.59	1.68	.64	3.39	.001	-.42	-.11	-.43

Note. PW = Poor Physical Well-being, DD = Disease-related Discrimination, BACS = Barriers to Care Scale, PRC = Positive Religious Coping, EC = Engagement Coping, PSS = Perceived availability of Social Support

The results in table 41 indicate that male cancer patients were significantly high on the scores of poor physical well-being, disease-related discrimination and barriers to care, whereas, female cancer patients scored high on the scores of positive religious coping, engagement coping and perceived availability of social support.

Table 42

Summary of multiple/moderated regression analysis for hypothesized relationships

Hypotheses	Supported / Not supported
Hypothesis 1	Supported
Hypothesis 2	Supported
Hypothesis 3	Not Supported
Hypothesis 4	Supported
Hypothesis 5	Supported
Hypothesis 6	Supported
Hypothesis 7a	Supported
Hypothesis 7b	Supported
Hypothesis 7c	Not supported
Hypothesis 8a	Supported
Hypothesis 8b	Supported
Hypothesis 8c	Not Supported
Hypothesis 9a	Supported
Hypothesis 9b	Not supported
Hypothesis 9c	Supported

The above table reflects summary of the hypotheses results.

Chapter-V

DISCUSSION

Present study investigated the role of positive religious coping, engagement coping and perceived availability of social support in moderating the stress-distress relationship among chronically-ill patients. This research also investigated whether appraisal of stressors, use of coping strategies and perceived availability of social support is related to gender, locale, type of disease and stages of disease among chronically-ill patients.

The findings of the study exhibited the moderating role of positive religious coping and engagement coping in poor physical well-being and depression, as well as disease-related discrimination and depression relationship, however, the moderating impacts of positive religious coping and engagement coping were not examined for barriers to care and depression relationship. Perceived availability of social support had moderating impacts for poor physical well-being as well as barriers to care, whereas, moderating effects of perceived availability of social support were not found for disease-related discrimination and depression relationship.

Main Effects of Stressors

First of all, this research investigated the role of stressors (namely, poor physical well-being, disease-related discrimination and barriers to care) in the prediction of depression among chronically ill patients. Multiple regression analyses examined significant main effects of poor physical well-being and disease related discrimination in predicting depression among chronically-ill patients, however, barriers to care did not have significant main effects for predicting depression.

The current findings about impact of poor physical well-being on depression is consistent with previous studies that investigated severity of physical symptoms associated with distress among HIV/AIDS and cancer patients (Adler & Page, 2008; Jacobsen, 2009). Moreover, severity of disease symptoms, coping with physical as well as psychological effects of treatment and disease-related discrimination has been shown associated with distress (Chochinov et al., 2002). AIDS patients even reported suicidal risks while dealing with severity of symptoms and facing discriminatory treatment (Bartlett & Gallant, 2001; Bing et al., 2001; Carrico et al., 2007; Dannenberg et al., 1996; Goodkin et al., 2001; Kalichman, Heckman, Kochman, Sikkema & Bergholte, 2000; Siegel & Meyer, 1999; Steward et al., 2008; Zabora et al., 2001).

It is pertinent to mention that in present findings poor physical well-being and disease-related discrimination shared comparatively more variance in predicting depression, reflecting upon ‘poor physical well-being’ and ‘disease-related discrimination’ as the source of distress among sample of chronically-ill patients. One of the possible reasons of this finding observed to be in the local context where chronically-ill patients are discriminated on account of their illness.

Stigmatization is a societal appraisal of patient’s responsibility in contracting the disease (Jones et al., 1984). According to Heatherton et al. (2000), the process of stigmatization and stereotyping is a normal result of people's cognitive abilities, limitations of the social information as well as experiences in their life (Heatherton et al., 2000).

In the context of existing disease stigma, patients suffering from stigmatized diseases are stigmatized as they are considered responsible for having contracted the disease (Jones et al., 1984), and having achieved the stigma (Falk, 2001), due to their character blemishes (Goffman, 1963), or deviations in personal traits (Campbell & Deacon, 2006) .

Patients suffering from infectious diseases or visible and worse symptoms at advanced disease stage are also stigmatized by the society (Jones et al., 1984). Visible symptoms of HIV/AIDS patients at advanced stages have been perceived as repulsive by their social groups (Herek, 1999).

HIV/AIDS patients report stigmatization in many social situations including treatment centers, where they are given medical treatment in secluded medical wards, doctors wear special gloves when treating these patients which reflects stigmatization for these patients. According to Heckman et al. (2002), the discriminatory treatment given to the HIV/AIDS patients in the social interactions and health settings increases their level of depression and makes it difficult for them to adjust in their life.

"To stigmatize an individual is to define the individual in terms of his negative attribute and to devalue him or her in a manner 'appropriate' to this label" (Crocker et al.; Goffman; Jones et al., as cited in Heatherton et al., 2000, p. 33). Stigmatization affects thinking, emotions and behavior of the stigmatized individual (Major & O'Brien, 2005). Discriminatory treatment makes the patients perceive themselves as socially deviant (Falk, 2001), they criticize their own poor idealized body image and indulge in self-labeling as well as self-stigmatization (Goffman, 1963). Stigmatized individuals anticipate discriminatory treatment (Major & O'Brien, 2005), view themselves with hatred, and experience distress (Heatherton et al., 2000).

The experience of 'status loss and discrimination' generates stress which in turn contributes in progressing the disease or relapse of the condition (Jacoby, 2005).

At the symptomatic stage, patients are aware that their manifest symptoms can be the triggers for stigmatization (Fitzgerald & Paterson, 1995), therefore, in order to hide their symptoms, they generally use strategies like avoiding social situations in order to conceal their symptoms, avoid talking to someone in order to avoid disclosing their disease status, trying to manage conversation to reduce the risk that others will learn about their disease status, passing off their disease symptoms to other causes (e.g., cold or being stressed out), hiding their disease status out of fear that people may say or do something that will hurt them and asking others to keep secrecy about their disease, as they fear that others will display negative behavior towards them once they will learn their disease status. However, use of avoidant and disengagement strategies has been found associated with distress (Perczek et al., 2002; Ransom et al., 2005).

Conversely, use of positive coping efforts despite one's stigmatized attributes have been investigated related to happiness, high self esteem, resilience to negative experiences and high level performance (Heatherton et al., 2000). For instance, seeking social support among HIV/AIDS patients has been reportedly associated with positive impact on their distress (Hays et al., 1992). Similarly, use of religious coping has been explored associated with low distress level among patient population (Pargament et al., 2001).

Main Effects of Positive Religious Coping, Engagement Coping and Perceived Availability of Social Support

The present research examined significant positive main effects of positive religious coping, engagement coping and perceived availability of social support on patients' level of distress. Religious coping was found explaining comparatively maximum variance, which implies that this strategy was preferred by the present population. This result is congruent with those of other studies that examined religious coping as an important coping strategy among patients suffering from life threatening diseases (Abraido-Lanza et al., 2004; Feher & Maly, 1999; Graham, Furr, Flowers, & Burke, 2001; Jenkins & Pargament, 1995; McClain et al., 2003; Pargament, 1997; Pargament et al., 2001; Siegel & Schrimshaw, 2002; Sodestrom & Martinson, 1987; Tarakeshwar & Pargament, 2001). The strategy of positive religious coping is frequently used by chronically-ill patients, as this coping strategy is associated with better mental health status (Pargament et al., 1994), fewer feelings of hopelessness (Koenig et al., 2001), low levels of psychopathology e.g., depression (Harrison et al., 2001; Smith et al., 1993), and lower levels of anxiety (Kaczorowski, 1989).

Current research also investigated the positive effects of engagement coping on distress among chronically-ill patients. This finding is in line with past research when use of cognitive reframing had significant main effects on well-being of patients (Smith, Seltzer, Tager-Flusberg, Greenberg, & Carter, 2008). Those, using engagement coping or engagement-type coping have been investigated reporting fewer psychological symptoms and higher quality of life (Fleishman & Fogel, 1994; Swindells et al., 1999).

In present research, main effects of perceived availability of social support on depression were also examined. This finding is consistent with previous research where perceived availability of social support facilitated efforts at identifying coping resources, use of positive coping strategies and benefit finding in one's critical situation (Baron et al., 1990; Heckman, 2003; Luszczynska et al., 2007; Wills, 1998). Availability of external resources in the environment makes it easier to cope with stressors (Lutgendorf et al., 1998). According to Vaux (1988**),** social support prevents the occurrence of stressors, facilitates in the reappraisal of an ambiguous encounter, acting directly to meet the demand, suggesting coping options or sustaining efficacy or facilitating recovery of emotional equilibrium through emotional support.

Moderating Effects of Positive Religious Coping, Engagement Coping and Perceived Social Support

Besides, present study also examined the moderating effects of positive religious coping, engagement coping and perceived availability of social support in stress-distress relationship among chronically-ill patients.

Positive religious coping was examined moderating the distress of poor physical well-being as well as disease-related discrimination, thus confirming two hypotheses of this study (H7a & H7b) that anticipated buffering effects of positive religious coping in the relationship between poor physical well-being and depression as well as disease-related discrimination and depression. These findings are in line with previous research where positive religious coping has been explored associated with higher subjective well-being (Koenig et al., 2001). As positive copings are used for dealing with the uncontrollable stressors (Folkman & Moskowitz, 2004), therefore, it appears that participants in the present study perceived their stressors as uncontrollable, perhaps this appraisal made them use the strategy of religious coping to moderate their distress.

In the current study, moderating impacts of religious coping were not found for barriers to care and depression relationship. One of the possible reasons may be that the stressor (barriers to care) was not appraised as uncontrollable by the sample of this study.

Present study also examined moderating role of engagement coping in the stress-distress relationship among chronically-ill patients. Engagement coping moderated the distress of two facets of stress (poor physical well-being and disease-related discrimination), thus supporting two hypotheses (H8a & H8b) that anticipated moderating effects of engagement coping in the relationship between poor physical well being and depression as well as disease-related discrimination and depression.

Present population used engagement coping strategies e.g. cognitive reinterpretation, seeking support, asking help from people having had similar experiences, trying to get emotional support from friends, relatives and family members to moderate their distress. This finding is in line with past research (Blinderman & Cherny, 2005), that examined seeking social support associated with better QOL. Similarly, patients who perceived their physical symptoms as temporary phenomenon, loved themselves unconditionally or looked for something positive in the situation (Fleishman & Fogel, 1994; Swindells et al., 1999), directed focus away from their disease (Lethborg et al., 2006), engaged themselves in positive activities like book reading, music, cathartic expression and prayers (De Faye et al., 2006; Ohlen et al., 2002), reported low distress level and better QOL.

In the current finding, the use of engagement coping moderated the distress of poor physical well-being as well as disease-related discrimination, however, moderating impacts of engagement coping were not examined for barriers to care and depression relationship. Hypothesis 8c, that anticipated moderating role of engagement coping for barriers to care and depression was therefore not confirmed.

However, the distress of 'barriers to care' was instead moderated by the perceived availability of social support (H9c), consistent with previous study where patients perceiving availability of social support were less likely to appraise barriers as threatening (Heckman et al., 2002).

Furthermore, current study examined moderating role of perceived availability of social support for poor physical well-being and depression as well as barriers to care and depression relationship, thus supporting H9a and H9c. These findings are in line with past studies that emphasized the role of social support as a buffer against traumatic stressors (Berkman et al., 2000; Cohen, 2004; Helgeson & Cohen, 1996; Kaspersen et al., 2003).

Hypothesis H9b, that anticipated moderating role of perceived availability of social support in disease-related discrimination and depression was not substantiated. This finding has been supported by previous empirical findings where perceived stigma has been examined inversely related with perceived availability of social support (Galvan et al., 2008; Vanlandingham et al., 2005).

It is important to notice that in the present research 'perceived availability of social support' has moderating impacts for 'barriers to care', but not for 'disease related discrimination'. This finding may be explained by the fact that appraisal of 'barriers to care' may be moderated even with 'limited' social support that facilitates an individual in handling difficult situation, whereas, the distress experienced due to discriminatory treatment received from masses may not be compensated by limited social support.

Additional Findings. Present study additionally analyzed whether appraisal of stressors, use of coping strategies and perceived availability of social support is associated with the demographic variables (gender, locale, type of disease and stage of disease) among chronically-ill patients.

First of all, this research studied differences across gender in the overall sample of chronically-ill patients. Male patients were found significantly high in their appraisal of poor physical well-being, disease related discrimination and barriers to care. Whereas, female patients were significantly high in their use of positive religious coping and engagement coping. However, these two groups (male & female), did not differ significantly in their perception of availability of social support.

Patients of this study were also compared across locale for differences in perception of stressors, use of coping strategies and perceived availability of social support. Rural patients were significantly high in their perception of poor physical well-being and barriers to care. This finding is in line with the past research where patients from rural areas reported barriers to care, namely; limited job opportunities, transport related problems, problems related to confidentiality, limited social support and prejudicial / discriminatory treatment (Bozovich et al., 1992; Heckman et al., 1998; Rounds, 1988). The high level of 'barriers to care' appraisal among rural patients is understandable in the local context, where major treatment centers are in urban areas, rural patients have to cover long distances to avail the medical facilities. It appears that due to the perceived barriers to care in the health settings, and transport related problems, patients from rural areas could not regularly visit health professionals to receive appropriate medical treatment to cope with their changing/ worsening symptoms; therefore, they reported poor physical well-being as compared to patients from urban areas. However, it was not investigated in the present study, whether the perception of poor physical well-being was associated to the severity of symptoms, or these patients perceived their symptoms as severe, as they could not receive regular medical treatment for their worsening symptoms, on account of barriers to care.

While comparing the patients across two diseases (HIV/AIDS & cancer) on the appraisal of stressors, use of coping strategies and perceived availability of social support, HIV/AIDS disease patients were found significantly high as compared to cancer patients in their use of positive religious coping, engagement coping and the perception of availability of social support. In previous research studies the strategy of positive cognition has been used in face of uncontrollable or chronic stressors (Folkman & Moskowitz, 2004), and past findings has also examined that religiosity gets deeper among the distressed individuals in face of traumatic situations / life threatening diseases (Abraido-Lanza et al., 2004; Ano & Vasconcelles, 2005; Berglund et al., 1994; Bickel et al., 1998; Dein & Stygall, 1997; Demi et al., 1997; Ellison & Taylor, 1996; Halstead & Hull, 2001; Jacobs et al., 2008; Jenkins & Pargament, 1995; Maton, 1989; McClain et al., 2003; Pargament, 1997; Richards et al., 1999; Siegel & Schrimshaw, 2002; Silvestri et al., 2003; Smith et al., 2003). In present study, use of positive religious coping and engagement coping among HIV/AIDS patients may be reflecting the perception of uncontrollability of their disease stressors.

In the present findings, the high use of engagement coping (e.g., seeking of support, consulting the ones suffering from same situations and the like) as well as perceived availability of social support among the HIV/AIDS patients is inconsistent with past studies, where HIV/AIDS patients have been found low in seeking of care (Foreman, 2003; Goodkin et al., 2001; Hamra et al., 2005; Lee et al., 2002; Malcolm et al., 1998; Vanable et al., 2006; Ware et al., 2006), and reported few social support (Heckman et al., 2002), even at asymptomatic stage of their disease or immediately after being diagnosed as HIV positive (Heckman et al., 1998; Kalichman et al., 2000; Kelly et al., 1987; Rounds, 1988; Siegel & Meyer, 1999; Zukoski & Thorburn, 2009).

The present findings regarding perception of availability of social support as well as seeking social support (an engagement coping strategy) among sample of HIV/AIDS patients may be explained by the nature of HIV/AIDS sample of present study, that was drawn from an NGO, 'New Light AIDS group', working for the welfare of HIV/AIDS patients. This organization was regularly providing social support to these patients and the patients were encouraged to seek support from the other HIV/AIDS patients who were members of the same organization. It was perhaps in this context that sample of HIV/AIDS patients significantly differed from cancer patients in high perception of availability of social support. The perception of availability of social support among present sample of HIV/AIDS indicates that in the context of permissive environment even HIV/AIDS patients may perceive availability of social support.

It appears that the perception of availability of social support not only moderated distress but also facilitated use of engagement coping strategies in the sample of HIV/AIDS patients. This finding is in line with the past empirical research that examined role of social support in facilitating coping resources / adherence to medical treatment (Heckman, 2003), benefit finding (Luszczynska et al., 2007), increasing efforts at using positive coping strategies (Baron et al., 1990; Heckman, 2003; Luszczynska et al., 2007; Wills, 1998), and improving psychological adjustment in HIV-infected persons (Leserman et al., 1999; Swindells et al., 1999).

However, despite the perception of availability of social support, present sample of HIV/AIDS patients was found using religious coping strategies as well (religious coping strategy is generally used in the face of uncontrollable stressor). However, it could not be further investigated in the present study, whether use of religious coping in the present sample of HIV/AIDS patients was associated to the perception of uncontrollable stressors (Ano & Vasconcelles, 2005; Bickel et al., 1998; Ellison & Taylor, 1996; Maton, 1989; Mattlin et al., 1990), or the use of positive strategy was facilitated by the perception of availability of social support from other HIV/AIDS patients, members of ‘New Light AIDS group’.

However, it is important to mention here, that availability of social support/acceptance from HIV positive individuals, may not compensate the social rejection from the healthy masses/significant others. Perhaps it was the uncontrollable distress of social rejection that made this group of patients to use the strategy of religious coping.

An alternate hypothesis is that use of religious coping and engagement coping might have been a shared strategy among the HIV/AIDS members, who belonged to the same organization. This organization was providing support and guidance to their HIV positive members regarding coping with their distress. It appears that cognitive reinterpretation (one of the strategy in religious coping and engagement coping) not only helped these patients in mitigating their distress but also positively altered the 'appraisal of disease stressors', as shown by low appraisal of stressors by HIV/AIDS patients in the present study, as compared to sample of cancer patients in this study, who were high in the perception of stressors. This finding is in line with past research where religious beliefs have been found influencing coping strategy as well as appraisal of stressors (Pargament et al., 1998). Perhaps this is the reason that present sample of HIV/AIDS patients did not report barriers to care as distressing as compared to cancer patients who were high in the perception of the stressor of 'barriers to care'. This low appraisal of barriers to care among HIV/AIDS is contrary to the previous findings where HIV/AIDS patients had to lessen their visits to health professionals after experiencing barriers to care (Heckman et al., 1998).

Current study also assessed appraisal of stressors, use of coping strategies, and perceived availability of social support across disease stages. Symptomatic patients were significantly high in perceiving poor physical well being, barriers to care and positive religious coping as compared to asymptomatic patients, consistent with past studies, where distress level among symptomatic patients has been found associated with the physical as well as psychological effects of their treatment (Chochinov et al., 2002). Their feelings of isolation and loneliness were related to anxiety, unresolved conflicts (Bolmsjo, 2000), ‘barriers to care’ in the health settings as well as in routine social interactions (Holland & Alici, 2010).

High level of barriers to care appraisal in the symptomatic sample of present study is reflecting upon the inaccessibility of the treatment facilities, prejudicial attitude in the health settings and issues of transportation, problems of distance and the like for this sample. Appraisal of poor physical well-being and barriers to care among symptomatic patients may be understood in the context of ‘sense of uncontrollability’ and severity of physical symptoms perceived at advanced stage of disease (Adler & Page, 2008; Jacobsen, 2009). Similarly, the perception of decline in usual activities (Lindqvist et al., 2006), the perception that they are no longer healthy (Rydahl-Hansen, 2005), that they have lost their autonomy and independence (Blinderman & Cherny, 2005; Bolmsjo, 2000; Wilson et al., 2007), and that social support is not available (Adler & Page, 2008; Jacobsen, 2009; Lethborg et al., 2006; Peters-Goldem, 1982) is generally reported by patients at advanced disease stages. Loss of social support, fear of people, fear of isolation and concerns of death have also been previously reported by advanced stage HIV/AIDS patients (Lethborg et al., 2006), and advanced stage cancer patients who reported lack of social support from colleagues, neighbors and distant friends (Luoma & Hakamies-Blomqvist, 2004).

As to why these stressors are appraised as uncontrollable by symptomatic patients may be explained by the fact that due to the severity of their symptoms these patients have to regularly visit treatment centers thus increasing the possibility of frequently encountering barriers to care, and the resultant perception of uncontrollability of the disease stressors. To handle their uncontrollable stressors, symptomatic patients as compared to asymptomatic patients, have been found using religious coping, consistent with past findings where positive religious coping has been used extensively among advanced stage patients (Hays et al., 1992; Revenson, 1994; Schwarzer et al., 2004; Tarakeshwar et al., 2006; Wills & Fegan, 2001). This important strategy has been used by the individuals experiencing social isolation, distress and anger (Acklin et al., 1983).

Present study also investigated differences in the perception of stressors, use of coping strategies and perception of availability of social support between symptomatic and asymptomatic patients across two diseases.

Cancer patients at symptomatic disease stage were compared with the cancer patients who were at asymptomatic disease stage. Symptomatic cancer patients were significantly high in their appraisal of poor physical well-being, barriers to care and use of positive religious coping, in line with past studies where spiritual awareness and well being among cancer patients had inverse relation with anxiety and distress (Kaczorowski, 1989; Smith et al., 1993).

Furthermore, in the current study, HIV/AIDS patients at symptomatic disease stage were compared with the HIV/AIDS patients who were at asymptomatic disease stage. Symptomatic patients significantly differed from asymptomatic patients in their appraisal of poor physical well being and barriers to care. However, unlike symptomatic cancer patients, who were found using religious coping to moderate their distress, reflecting upon their appraisal of uncontrollable stressors, HIV/AIDS patients were found using the strategy of religious coping irrespective of being at symptomatic or asymptomatic disease stage. This indicates that present sample of HIV/AIDS was facing 'uncontrollability' of disease stressors, hence using religious coping that is known for moderating the distress of traumatic/uncontrollable stressors.

Furthermore, appraisal of poor physical well-being and barriers to care among symptomatic patients of both diseases (cancer & HIV/AIDS patients) may be explained in the context of severity of symptoms/painful nature of medical treatment and frequent appraisal of barriers to care, on account of regular and unavoidable visits to health settings. It seems that the high level of disease-related discrimination among symptomatic patients may be associated to the visibility of their disease symptoms, the degree of reaction of public to the obvious symptoms, the apparent danger associated with their disease, (fear of getting infected), and societal appraisal of patient's responsibility in contracting the disease etc. (Jones et al., 1984).

Current study investigated whether cancer male patients differ from cancer female patients in the appraisal of stressors, use of coping strategies and perceived availability of social support.

First of all, male cancer patients were compared with female cancer patients. Male cancer patients were significantly high in the appraisal of poor physical well-being, disease-related discrimination and barriers to care as compared to female cancer patients. High appraisal of disease-related discrimination and barriers to care among male patients might be explained by the fact that majority of male cancer patients were suffering from Lung cancer as compared to female cancer patients of this study, who were predominantly breast cancer patients. Patients of Lung cancer has to face stigmatization, as it is assumed that they contributed to attain the stigma (Falk, 2001), due to deviation in their personality traits (Campbell & Deacon, 2006). Conversely, breast cancer patients are not considered responsible in contracting the disease, they are considered having less control over contracting their disease, hence less stigmatized (Falk, 2001).

However, this study did not investigate whether the perception of disease-related discrimination and barriers to care among male cancer patients affected their regular visits to health centers which in turn affected their perception of poor physical well-being. Moreover, this study did not examine whether disease-related discrimination adversely affected adherence to medication among male cancer patients, as patients perceiving low social support report poor physical health (Wills, 1998), and poor adherence to medical treatment (Reece, Tanner, Karpiak, & Coffey, 2007).

On the contrary, this study found female cancer patients high in their use of religious coping, engagement coping and perceived availability of social support as compared to male cancer patients. It appears that the positive cognition and behavior of the patients positively changed the appraisal of stressors among female cancer patients, as religious beliefs has been previously found influencing the coping strategies as well as the appraisal of the stressors (Pargament et al., 1998). However, it was unclear whether use of religious coping and engagement coping strategies (namely seeking support, asking people who have had similar experience for advice, and trying to get emotional support from friends, relatives and family members) among female cancer patients was related to their perception of availability of social support, as social support is known to increase one's efforts at identifying coping resources as well as increasing positive coping strategies (Wills, 1998).

However, it was not examined in the present study, whether use of religious coping in female cancer patients was associated to their appraisal of uncontrollability of traumatic nature of diagnosis and related disease stressors.

Finally, current study investigated whether HIV/AIDS patients differ in the appraisal of poor physical well-being, disease-related discrimination, barriers to care, use of coping strategies and perception of availability of social support across gender. Male HIV/AIDS patients were significantly high in their perception of availability of social support as compared to female HIV/AIDS patients. One of the possibilities of this finding might be in the socio-cultural norms in the local context. As in the local family system women are supposed to provide services support and unconditional acceptance to the men of the family. Beneficial impacts of perceived social support from the significant others have been examined in the past studies (Canty-Mitchell & Zimet, 2000; Edwards, 2004; Finch & Vega, 2003; Hall, 1999; Zimet et al., 1988, 1990).

It is pertinent to mention in the end, that male and female HIV/AIDS patients did not differ in the appraisal of stressors; one of the possible reasons of this finding might be in the prevailing stigmatized discrimination/prejudicial attitude in the local context for the HIV/AIDS patients, irrespective of gender.

Conclusion

The conceptual model of present study hypothesized mitigating role of positive religious coping, engagement coping and perceived availability of social support in the stress (poor physical well being, disease related discrimination and barriers to care) and distress (depression) relationship among chronically-ill patients. Significant main effects were found for poor physical well-being, disease-related discrimination, engagement coping, positive religious coping and perceived availability of social support and depression relationship, however, significant main effects were not found for barriers to care and depression relationship. Interaction effects were partially found. Moderating role of positive religious coping and engagement coping were found for poor physical well being and disease-related discrimination, whereas, perceived availability of social support moderated distress of poor physical well-being and barriers to care.

Overall, male patients differed from female patients in the appraisal of poor physical well-being, disease-related discrimination and barriers to care, whereas, female patients significantly differed from male patients in their use of coping strategies. Patients from rural areas were high in the perception of poor physical well-being and barriers to care as compared to urban patients. HIV/AIDS patients differed from cancer patients in their high use of coping strategies and perception of availability of social support. Differences were more evident when patients were assessed across disease stages. Symptomatic patients were high in the appraisal of low physical well-being, barriers to care and positive religious coping as compared to asymptomatic patients. Chronically-ill patients (HIV/AIDS & cancer) were also assessed across disease stages. HIV/AIDS patients at symptomatic disease stage were high on the appraisal of poor physical well-being and barriers to care as compared to HIV/AIDS patients at asymptomatic disease stage. Whereas, cancer patients at symptomatic disease stage significantly differed from cancer patients at asymptomatic disease stage in their appraisal of poor physical well-being, barriers to care and use of positive religious coping. Patients (HIV/AIDS & cancer) were also assessed across gender. Male cancer patients were high on the appraisal of poor physical well-being, disease-related discrimination and barriers to care as compared to female cancer patients. Whereas, female cancer patients were high on the use of religious coping, engagement coping and perceived availability of social support as compared to male cancer patients. HIV/AIDS male patients differed from HIV/AIDS female patients only in their perception of availability of social support, however, these two groups (HIV/AIDS male and female patients) did not differ on the perception of poor physical well-being, disease-related discrimination, barriers to care and the use of coping strategies (religious coping, engagement coping).

Implications

The findings of present study suggest that health professionals / therapist need to give due consideration to the contextual factors, while planning therapeutic strategies or recommending coping strategies for chronically-ill patients. Patients with different demographics are subjected to different stressors, therefore, same interventions might not be effective in moderating distress of patients with different characteristics, namely stage of disease, type of disease gender, locale, socio-cultural context and existing disease stigma.

"Since the experience of chronic illness is extremely wide-ranging (influenced among a great many things, by gender, race, age, marital status and material circumstances), there is likely to be significant individual variations" (Annandale, 1998, p. 258)**.**

Bio-psychosocial model needs to be used for studying chronic illnesses and designing therapeutic interventions. Professionals need to counsel patients in the context of their stress appraisal (poor physical well-being, disease-related discrimination and barriers to care). Interventions that aim at bringing improvement in the quality of life among HIV/AIDS will be effective when they “target those factors that are theoretically and empirically shown to predict life quality in this group” (Heckman, 2003, p. 140).

Positive religious coping may be used for coping with those stressors that are perceived as ‘uncontrollable’. Restructuring and reinterpretation of the stressors follows positive appraisal of the stressor. Connectedness with the higher being strengthens the patients to tolerate painful symptoms as well as social rejection. Patients perceiving discriminatory treatment need to use positive religious coping and engagement coping instead of seeking social support. The strategies of cognitive reinterpretation, looking at the event from a wider perspective, asking mercy from God and the like might moderate the distress of stigmatized patients.

In the light of current findings therapist needs to give importance to spiritual support / spiritual needs of the patient that has been ignored by the doctors (Ehman et al., 1999; Kristeller et al., 1999). It has been previously recommended to integrate religious beliefs in psychological therapies (Harris et al., 1999; Sperry & Shafranske, 2005).

Engagement coping strategies, namely ‘seeking social support’ from masses may not be recommended in the context of disease stigma, as it may end up in frustration and increase the preexisting distress level of the patients. Patients need to be guided regarding avoidance of unnecessary interaction with those social groups that might stigmatize the patients. Patients may be counseled to share their disease status preferably to those individuals who may facilitate the patients in their adjustment efforts or who may be in the same situation. Seeking social support and asking for the effective coping strategies, from the ones in the same situation might be helpful in the reappraisal of the stressors as well as in mitigating the distress.

Therapists need to counsel the patient to focus on ‘available’ social support (no matter, limited), instead of ‘limited’ social support. Patients need to be further guided that due to their excessive need for social support, available social support might appear as ‘insufficient’ to them, therefore instead of expressing negative gestures to their care givers, they should appreciate the available social support and respond positively to those who are providing them support.

Considering the recommendation of provision of social support from significant others and professionals in facilitating adjustment to chronic-illness (National Board of Health, 2005; Saunders, 2006; WHO, 2002), it is strongly suggested to sensitize professionals as well as significant others; care givers and those in the regular contacts of the patients, to the psychological needs of the patients and the distress associated with the negative attitude of the public.

Masses need to be educated that most of the chronically-ill patients are not accountable in contracting the disease; they also need to be sensitized to the physical pain associated with disease symptoms as well as medical treatment. They may be further sensitized to the adverse impacts of perception of disease-related discrimination, barriers to care, and lack of social support on the choice of coping strategies among the patients, as individuals perceiving lack of social support and stigmatization prefer using disengagement strategies, namely; social withdrawal, non-adherence to the medical treatment etc. These strategies directly or indirectly contribute towards the faster progression of their disease.

General public need to be guided and educated about moderating effects of provision of social support and permissive environment, in reducing disease-related stigma, as well as barriers to care and facilitating patients' regular visits to the health professionals and routine social contacts. They may be sensitized to the fact that permissive and controllable environment determines one's ability to access support services (Heckman, 2003), and adherence to medication (Mellins et al., 2002), that not only reduces the painful physical condition but also delays the progression of disease.

Through the medium of psycho-drama, commercial movies, theatrical performance, documentaries, talk shows, and the like, masses need to be sensitized to the adverse impacts of stigmatization, and positive impacts of social support on the psychological and physical health of the patients.

Suggestions and Limitations

Current research has certain limitations. Sample of this study consisted of primarily less educated and predominately lower middle-class patients, thus the findings may not be generalized to the individuals from other socioeconomic groups. Moreover, as the findings of the research have been based on the cross-sectional data hence causal inferences cannot be made. Sample of HIV/AIDS patients was taken from one organization, 'New light AIDS group', thus limiting the generalization of the findings related to these patients. HIV/AIDS patients of this research were members of the said organization for a number of years, therefore, while scoring on the instrument of 'availability of social support' these patients might have in mind the availability of social support from the members (HIV/AIDS patients) of the said Organization. Moreover, due to the necessarily voluntary nature of the sample, selection biases might have operated among study participants, which could cause their responses to differ from those who chose not to participate.

It is worth mentioning in the end that moderating role of positive religious coping, which was found in this research may not be examined among those patients who do not appraise their stressors as ‘uncontrollable’, and who are high in ‘perceiving availability of social support’.

Future studies may investigate the role of negative religious coping and disengagement coping among chronically-ill patients. It will be interesting to see what future studies conclude.

REFERENCES

Abraído-Lanza, A. F., Vázquez, E., & Echeverría, S. E. (2004). En las manos de Dios (in God's hands): Religious and other forms of coping among Latinos with arthritis. *Journal of Consulting and Clinical Psychology, 72,* 91-102.

Acklin, M. W., Brown, E. C., & Mauger, P. A. (1983). The role of religious values in coping with Cancer. *Journal of Religion and Health, 22,* 322-333.

Adler, N. E., & Page, A. E. K. (Eds.). (2008). *Cancer care for the whole patient: Meeting psychosocial health Needs*. The National Academies Press.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions.* Newbury Park, CA: Sage.

Andersen, B. L. (1992). Psychological interventions for cancer patients to enhance quality of life. *Journal of Consulting and Clinical Psychology, 60*(4), 552-568.

Andersen, B. L. (2002). Bio-behavioral outcomes following psychological interventions for cancer patients. *Journal of Consulting and Clinical Psychology, 70,* 590-610.

Andersen, B. L., Anderson, B., & deProsse, C. (1989). Controlled prospective longitudinal study of women with cancer: I. Sexual functioning outcomes. *Journal of Consulting and Clinical Psychology, 57*(6), 683-691.

Annandale, E. (1998). *The sociology of health and medicine.* USA, Blackwell Publishing.

Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: a meta-analysis. *Journal of Clinical Psychology, 61*(4), 461-480.

Antoni, M. H., Cruess, D. G., Cruess, S., Lutgendorf, S., Kumar, M., Ironson, G. Schneiderman, N., Klimas, N., Fletcher, M.A. (2000). Cognitive behavioral stress management intervention effects on anxiety, 24-hour urinary catecholamine output, and T-cytotoxic/suppressor cells over time among symptomatic HIV-infected gay men. *Journal of Consulting and Clinical Psychology, 68,* 31-45.

Aranda, S., Schofield, P., Weih, L.,Yates, P., Milne, D., Faulkner, R., & Voudouris, N. (2005). Mapping the quality of life and unmet needs of urban women with metastatic breast cancer. *European Journal of Cancer Care (England), 14*, 211-222.

Bairan, A., Taylor, G. A. J., Blake, B. J., Akers, T., Sowell, R., & Mendiola, R. (2007). A model of HIV disclosure: Disclosure and types of social relationships. *Journal of the American Academy of Nurse Practitioners, 19* (5), 242-250.

Balboni, T. A, Vanderwerker, L. C., Block, S. D., Paulk, E. M., Lathan, C. S., Peteet, J. R., & Prigeson, H. G. (2007). Religiousness and spiritual support among advanced cancer patients and associations with end-of-life treatment preferences and quality of life. *Journal of Clinical Oncology, 25* (5), 555-560.

Balboni, T. A., Paulk, M. E., Balboni, M. J., Phelps, A. C., Loggers, E. T., Wright, A. A., Block, S. D., Lewis, E.F., Peteet, J. R., Prigerson, H. G. (2010). "Provision of spiritual care to patients with advanced cancer: Associations with medical care and quality of life near death". *Journal of Clinical Oncology, 28* (3), 445-452.

Baron, R. S., Cutrona, C., Hicklin, D., Russell, D. W., & Lubarof, D. M. (1990). Social support and immune function among spouses of cancer patients. *Journal of Personality and Social Psychology, 59*(2), 344-352.

Bartlett, J. G., & Gallant, J. E. (Eds). (2001). *Medical management of HIV infection (2000–2001).* Baltimore, MD: Division of Infectious Diseases. Johns Hopkins University.

Batterham, P., Rice, E., & Rotheram-Borus, M. J. (2005). Predictors of serostatus disclosure among young people living with HIV in the pre-and post-HAART eras. *AIDS and Behavior, 9*(3), 281-287.

Beck, A. T., & Steer, R. A. (1993). *Beck Depression Inventory*. San Antonio, Tx: Psychological Corporation.

Beck, C. T., Bernal, H., & Froman, R. D. (2003). Methods to document semantic equivalence of a translated scale. *Research in Nursing & Health, 26*, 64-73.

Ben-Eliyahu, S., Shahkar, G., Page, G. G., Stefanski, V., & Shakhar, K. (2000). Suppression of NK cell activity and résistance to metastasis by stress : A role for adrenal catécholamines and beta-adrenoceptors. *Neuroimmunomodulation, 8*(3)*,* 154-164.

Berglund, G., Belund, C., Gustafson, U., & Sjoden, P. (1994). A randomized study of a rehabilitation program for cancer patients: The "starting again" group. *Psychology, 3,* 109-120.

Berkman, L. F., Glass, T., Brisette I., & Seeman, T. E. (2000). “From social integration to health: Durkheim in the new millennium”. *Social Science and Medicine, 51,* 843-857.

Bickel, C. O., Ciarrocchi, J. W., Sheers, N. J., Estadt, B. K., Powell, D. A., & Pargament, K. I. (1998). Perceived stress, religious copying styles, and depressive affect. *Journal of Psychology and Christianity, 17*, 33-42.

Billings, A. G., & Moos, R. H. (1981). The role of coping responses and social resources in attenuating the stress of life events. *Journal of Behavioural Medicine, 4,* 139-157.

Bing, E. G., Burnam, M. A., Longshore, D., Fleishman, J. A., Sherbourne, C. D., London, A., Turner, B. J., Eggan, F., Beckman, R., Vitiello, B., Morton, S. C., Orlando, M., Bozzette, S. A., Ortiz-Barron, L., & Shapiro, M. (2001). Psychiatric disorders and drug use among HIV-infected adults in the United States. *Archives of General Psychiatry, 58,* 721-728.

Birbeck, G. L., Chomba, E., Kvalsund, M., Bradbury, R., Mang'ombe, C., Malama, K., Kaile, T., Byers, P.A. & Organek, N.: RAAZ Study Team. (2009). Antiretroviral adherence in rural Zambia: the first year of treatment availability. *Am J Trop Med Hyg., 80*(4), 669-674.

Birbili, M. (2000). Translating from one language to another. *Social Research Update, 31*.Retrieved from http://www.soc.surrey.ac.uk/sru/SRU31.html

Blinderman, C. D., & Cherny, N. I. (2005). Existential issues do not necessarily result in existential suffering: Lessons from cancer patients in Israel. *Palliative Medicine, 19*, 371-380.

Boberg, E. W., Gustafson, D. H., Hawkin, R. P., Chan, C. I., Bricker, E., Pingree, S., & Berhe, H. (1995). Development, acceptance and use patterns of a computer-based education and social support system for people living with AIDS/HIV infection. *Computers in Human Behavior*, *11*, 289-311.

Bodenmann, G. (1997). Dyadic coping: a systemic–transactional view of stress and coping among couples: Theory and empirical findings. *European Review of Applied Psychology, 47*, 137-140.

Bolmsjo, I. (2000). Existential issues in palliative care: Interviews with cancer patients. *Journal of Palliative Care, 16*(2), 20-24.

Bozovich, A., Cianelli, L., Johnson, J., Wagner, L., Chrash, M., & Mallory, G. (1992). Assessing community resources for rural PWAs. *AIDS Patient Care, 6,* 229-231.

Bradley, R. G., & Follingstad, D. R. (2001). Utilizing disclosure in the treatment of the sequelae of childhood sexual abuse: A theoretical and empirical review. *Clinical Psychology Review, 21*(1), 1-32.

Braun, U. K., Beyth, R. J., Ford, M. E., & McCullough, L. B. (2008). Voices of African American, Caucasian, and Hispanic surrogates on the burdens of end-of-life decision making. *J Gen Intern Med., 23*(3), 267-274.

Breitbart, W., Lederberg, M.S., Rueda-Lara, M., & Alici, Y. (Eds.). (2009). Psycho-Oncology. In B. J. Sadock & V. A. Sadock, *Kaplan and Sadock's synopsis of psychiatry* (10th ed., pp. 2314-2353). Philadelphia, PA: Lippincott Williams and Wilkins Press.

Brislin, R. W. (1976). "Introduction". In R. W. Brislin (Ed.), *Translation: Applications and research* (pp. 1-43). New York: Gardner.

Brislin, R. W. (1980). Translation and content analysis of oral and written materials. In H. C. Triandis & H. W. Berry, (Eds.), *Handbook of cross-cultural psychology* (Vol. 2, pp. 389-444). Boston: Allyn & Bacon.

Brislin, R. W. (1986). The Wording of Translation of Research Instruments. In W. J. Lonner, & J. W. Berry, (Eds.), *Field methods in cross-cultural research* (pp. 137-164). Beverly Hills, CA: Sage.

Brown, J. E., King, M. T., Butow, P. N., Dunn, S. M., & Coates, A. S., (2000). Patterns over time in quality of life, coping and psychological adjustment in late stage melanoma patients: an application of multilevel models. *Quality of Life Research, 9,* 75-85.

Bullock, K. (2006). Promoting advance directives among African Americans: a faith-based model. *J Palliat Med., 9*(1), 183-195.

Bulmer, M., & Warwick, D. (1993). *Social research in developing countries—: surveys and censuses in the Third World*. London: Routledge.

Burgess, A. P., Carretero, M., Klkington, A., Pasqual-Marsettin, E., Lobaccaro, C., & Catalin, J. (2000). The role of personality, coping style, and social support in health-related quality of life in HIV-infection. *Quality of life Research, 9,* 423-437.

Calin, T., Green, J., Hetherton, J., & Brook, G. (2007). Disclosure of HIV among Black African men and women attending a London HIV clinic. *AIDS Care: Psychological and Socio-medical Aspects of AIDS/HIV, 19*(3), 385-391.

Campbell, C., & Deacon, H. (2006). Unraveling the contexts of stigma: From internalization to resistance to change. *Journal of Community and Applied Social Psychology, 16*(6), *426-441.*

Canty-Mitchell, J., & Zimet, G. D. (2000). Psychometric properties of the Multidimensional scale of perceived social support in urban adolescents. *American Journal of Community Psychology, 28,* 391-400.

Carrico, A. W. (2010). Elevated suicide rate among HIV-positive persons despite benefits of antiretroviral therapy: Implications for a stress and coping model of suicide. *Am J Psychiatry, 167,* 117-119.

Carrico, A. W., Johnson, M. O., Morin, S. F., Remien, R. H., Charlebois, E. D., Steward, W. T., & Chesney, M. A. & the NIMH healthy living project team (2007). Correlates of suicidal ideation among HIV-positive persons. *AIDS, 21*(9), 1199-1203.

Carson, V., Soeken, K. L., Shanty, J., & Terry, L. (1990). Hope and spiritual well-being: Essentials for living with AIDS. *Perspectives in Psychiatric Care, 26*(2), 28-34.

Carter, H., MacLeod, R., Brander, P., & McPherson, K. (2004). Living with a terminal illness: Patients' priorities. *Journal of Advance Nursing, 45*(6), 611-620.

Casarett, D. J., Inouye, S. K. (2001). American College of Physicians-American Society of Internal Medicine End-of-Life Care Consensus Panel: Diagnosis and management of delirium near the end of life. *Ann Intern Med.*, *135*(1), 32-40.

Cassileth, B. R., Lusk, E. J., Miller, D. S., Brown, L. L., & Miller, C. (1985). Psychological correlates of survival in advanced malignant disease? *New England Journal of Medicine, 312*(24), 1551-1555.

Catz, S. L., Kelly, J. A., Bogart, L.M., Benotsch, E. G., & McAuliffe, T. L. (2000). Patterns, correlates, and barriers to medication adherence among persons prescribed new treatments for HIV disease. *Health Psychology, 19*, 124-133.

Catz, S. L., McClure, J. B., Jones, G. N., & Brantley, P. J. (1999). Predictors of outpatient medical appointment attendance among persons with HIV. *AIDS Care, 11*, 361-373.

Cella, D. F., McCain, N. L., Peterman, A. H., Mo, F., & Wolen, D. (1996). Development and validation of the functional assessment of Human immunodeficiency virus Infection (FAHI) quality of life instrument. *Quality of Life Research, 5*, 450-463.

Chandra, P. S., Deepthivarma, S., & Manjula, V. (2003). Disclosure of HIV infection in South India: Patterns, reasons and reactions. *AIDS Care, 15*, 207-215.

Chochinov, H. M., Hack, T., Hassard, T., Kristjanson, L. J., McClement, S., & Harlos, M. (2002). Dignity in the terminally ill: a cross-sectional, cohort study. *Lancet, 360,* 2026-2030.

Clayton, J. M., Butow, P. N., Arnold, R. M., & Tattersall, M. H. (2005). Fostering coping and nurturing hope when discussing the future with terminally ill cancer patients and their caregivers. *Cancer, 103*, 1965-1975.

Cohen, J., & Cohen, P. (1983). *Applied multiple regression/ correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.

Cohen, M. (2002). Coping and emotional distress in primary and recurrent breast cancer patients. *Journal of Clinical Psychology in Medical Settings, 9*(3), 245-251.

Cohen, S. (2004). Social relationships and health. *American Psychologist, 59*, 676-684.

Cohen, S. R., & Leis, A. (2002). What determines the quality of life of terminally ill cancer patients from their own perspective? *Journal of Palliative Care, 18*(1), 48-58.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98,* 310-357.

Cohen, S., Mermelstein, R., Kamarck, T., & Hoberman, H. (1985). Measuring the functional components of social support. In I. G. Sarason & B. R. Sarason, (Eds.), *Social Support: Theory, research and applications*, (pp. 73-94). The Hague: Martinus Nijhoff.

Cole, S. W., Kemeny, M. E., Taylor, S. E., & Visscher*,* B. R. (1996). Elevated physical health risk among gay men who conceal their homosexual identity. *Health Psychology, 15*(4), 243-251.

Cooper, C. L., Pervin, L. A., (1998). *Personality: Critical Concepts in Psychology*. London: Routledge.

Cordova, M. J., Giese-Davis, J., Golant, M., Kronnenwetter, C., Chang, V., McFarlin, S., & Spiegel, D. (2003). Mood disturbance in community cancer support groups: The role of emotional suppression and fighting spirit. *Journal of Psychosomatic Research, 55*(5), 461-467.

Coyle, N. (2006). The hard work of living in the face of death. *Journal of Pain and Symptom Management, 32,* 266-274.

Coyne, J. C., & Fiske, V. (1992). Couples coping with chronic & catastrophic illness. In T. J. Akamatsu, J. C. Crowther, S. C. Hobfoll, & M. A. P. Stevens (Eds.), *Family health psychology* (pp. 129-149). Washington, DC: Hemisphere.

Coyne, J. C., & Smith, D. A. K. (1991). Couples coping with a myocardial infarction: Acon-textual perspective on wives' distress. *Journal of Personality and Social Psychology, 61,* 404-412.

Crawley, L.M., Payne, R., Bolden, J., Payne, T., Washington, P., Williams, S. (2000). Initiative to Improve Palliative and End-of-Life Care in the African American Community. *JAMA, 284*(19), 2518-2521.

Cronbach, L. J. (1984). *Essentials of Psychological Testing*, (6th ed.). NY: McGraw-Hill.

Curlin, F. A., Lawrence, R. E., Odell, S**.,** Chin, M. H., Lantos, J. D., Koenig, H. G., & Meador, K. G. (2007). Religion, spirituality, and medicine: psychiatrists' and other physicians' differing observations, interpretations, and clinical approaches. *Am J Psychiatry, 164*(12), 1825-1831.

Daaleman, T., P., & Vandecreek, L. (2000). Placing religion and spirituality in end-of-life care. *JAMA, 284*, 2514-2517.

Dahab, M., Charalambous, S., Hamilton, R., Fielding, K., Kielmann, K., Churchyard, G. J., & Grant, A. D. (2008). "That is why I stopped the ART": patients' & providers' perspectives on barriers to and enablers of HIV treatment adherence in a South African workplace programme. *BMC Public Health***,** *18*(8), 63.

Dannenberg, A. L., McNeil, J. G., Brundage, J. F., & Brookmeyer, R. (1996). Suicide and HIV infection. Mortality follow-up of 4147 HIV-seropositive military service applicants. *JAMA, 276*, 1743-1746.

Davidson, A. R, Jaccard, J. J., Triandis, H. C., Morales,M. L., & Diaz-Guerrero, R. (1976). Cross-cultural model testing: Toward a solution of the etic-emic dilemma. *International Journal of Psychology, 11*, 1-13.

De Faye, B. J., Wilson, K. G., Chater, S., Viola, R. A., & Hall, P. (2006). Stress and coping with advanced cancer. *Palliative and Supportive Care, 4(3),* 239-249.

Dein, S., & Stygall, J. (1997). Does being religious help or hinder coping with chronic illness? A critical literature review. *Palliative Medicine, 11*, 291-298.

Demi, A., Moneyham, L., Sowell, R., & Cohen, L. (1997). Coping strategies used by HIV infected women. *Journal of Death and Dying, 35,* 173-177.

Drennan, G., Levett,. A., & Swarts, L. (1991). Hidden dimension of power and resistance in the translation process: A South African study. *Cul Med Psychiatry, 15*(3), 361-81.

Duldt, B. W., & Giffin, K. (1985). *Theoretical perspectives for nursing*. Boston: Little Brown and Company.

Dunn, M. G., & O'Brien, K. M. (2009). Psychological Health and Meaning in Life Stress, Social Support, and Religious Coping in Latina/Latino Immigrants Hispanic. *Journal of Behavioral Sciences, 31*, 204-227. Retrieved from http://hjbs.sagepub.com.

Dusseldorp, E., van Elderen, T., Maes, S., Meulman, J., & Kraaij, V. (1999). A meta-analysis of psycho-educational programs for coronary heart disease patients. *Health Psychology, 18,* 506-19.

Edwards, L. M. (2004). Measuring perceived social support in Mexican American youth: Psychometric properties of the multidimensional scale of perceived social support. *Hispanic Journal of Behavioral Sciences, 26,* 187-194.

Ehman, J. W., Ott. B. B., Short, T. H., Ciampa, R. C., & Hansen-Flaschen, J. (1999). Do patients want physicians to inquire about their spiritual or religious beliefs if they become gravely ill? *Arch of Intern Med., 159,* 1803-1806.

Ellis, A. (1960). There is no place for the concept of sin in psychotherapy. *Journal of Counseling Psychology, 7,* 188-92.

Ellison, C. G., & Taylor, R. J. (1996). Turning to prayer: Social and situational antecedents of religious coping among African Americans. *Review of religious Research, 38,* 111-131.

Esterling, B. A., Antoni, M. H., Schneiderman, N., Carver, C. S., LaPerriere, A., Ironson, G., Klimas, N. G., & Fletcher, M. A. (1992). Psychosocial modulation of antibody to Epstein-Barr viral capsid antigen and herpes virus type-6 in HIV-1 infected and at-risk gay men. *Psychosomatic Medicine, 54*(3), 354-371.

Eustace, R. W., & Ilagan, P. R. (2010). HIV disclosure among HIV positive individuals: a concept analysis. *Journal of Advanced Nursing, 66*, 2094-2103. doi: 10.1111/j.1365-2648.2010.05354.x.

Everson, S. A., Goldberg, D. E., Kaplan, G. A., Cohen, R. D., Pukkala, E., Tuomilehto, J., & Salonen, J. T. (1996). Hopelessness and risk of mortality and incidence of myocardial infarction and cancer. *Psychosomatic Medicine, 58,* 113-21.

Exline, J. J., Yali, A. M., & Lobel, M. (1999). When God disappoints. Difficulty forgiving God and its role in negative emotion. *Journal of Health Psychology, 4,* 364-379.

Falk, G. (2001). *Stigma: How we treat outsiders.* New York: Prometheus Books.

Fallowfield, L., Ratcliffe, D., Jenkins, V., & Saul, J. (2001). Psychiatric morbidity and its recognition by doctors in patients with cancer. *Br J Cancer, 84,* 1011-1015.

Fanning, M., Emmot, S. D., (1994). *Validation of a quality of life instrument for patients with HIV* (NHRDP), Publication no. 6606-4334-AIDS), Ottawa, Ontario: Health and Welfare: Canada.

Fawzy, F. I., Fawzy, N. W., Hyun, C. S., Elashoff, R. Guthrie, D., Fahey, J. L., & Morton, D. (1993). Malignant melanoma: Effects of an early structured psychiatric intervention, coping, and affective state on recurrence and survival six years later. *Archives General Psychiatry, 50,* 681- 689.

Fegg, M. J., Wasner, M., Neudert, C., & Borasio, G. D. (2005). Personal values and individual quality of life in palliative care patients. *Journal of Pain and Symptom Management, 30,* 154-159.

Feher, S., & Maly, R. C. (1999). Coping with breast cancer in later life: The role of religious faith. *Psycho-Oncology, 8,* 408-416.

Fekete, E. M., Antoni, M. H., Lopez, C. R., Durán, R. E., Penedo, F. J., Bandiera, F.C., Fletcher, M.A, Klimas, N., Kumar, M., Schneiderman, N. (2009). Men's serostatus disclosure to parents: associations among social support, ethnicity, and disease status in men living with HIV. *Brain Behavior and Immunity, 23*(5), 693-699.

Ferrans, C. E., Zerwic, J. J., Wilbur, J. E., & Larson, J. L. (2005). Conceptual model of health-related quality of life. *Journal of Nursing Scholarship, 37*(4), 336-342.

Finch, B. K., & Vega, W. (2003). Acculturation stress, social support, and self-rated health among Latinos in California. *Journal of Immigrant Health, 5,* 109-118.

Fitchett, G., Peterman, A., & Cella, D. (1996, October). *Spiritual beliefs and quality of life in cancer patients and HIV patients*. Paper presented at the third world congress of Psycho-Oncology, New York.

Fitzgerald, M. H., & Paterson, K. A. (1995). The hidden disability dilemma for the preservation of self. *Journal of Occupational Science (Aust), 29*(1), 13-21.

Fleishman, J. A., & Fogel, B. (1994). Coping and depressive symptoms among people with AIDS. *Health Psychology, 13,* 156-169.

Folkman, S., & Lazarus, R.S. (1988). *Manual for ways of coping questionnaire*. CA: Consulting Psychologists Press.

Folkman, S., & Moskowitz, J. T. (2000). Stress, positive emotion, and coping. *Current Directions in Psychological Science, 9*, 115-118.

Folkman, S., & Moskowitz, J. T. (2004). Coping: pitfalls and promise. *Annual Review of Psychology, 55,* 745-774.

Folkman, S., Chesney, M. A., Pollack, L., & Phillips, C. (1992). Stress, coping, and high-risk sexual behavior. *Health Psychology, 11*, 218-222.

Foreman, M., Lyra, P., & Breinbauer, C. (2003). *Understanding and responding to HIV/AIDS-related stigma and discrimination in the health sector.* Washington, DC: Pan American Health Organization.

Frankl, V. E. (1984). *Man's search for meaning*. New York, NY: Washington Square Press.

Freud, S. (1949). *The future of an illusion*. New York: Liveright Publishing Corporation.

Fulk, L. J., Kane, B. E., Phillips, K. D., Bopp, C. M., & Hand, G. A. (2004). Depression in HIV-infected patients: Allopathic, complementary, and alternative treatments. *Journal of Psychosomatic Research, 57*, 339-351.

Galvan, F. H., Maxwell, D. E, Banks, D., & Bing, E. G. (2008). HIV stigma and social support among African Americans. *AIDS Patient Care STDS, 22*, 423-436.

Geisinger, K. F. (1994). Cross-cultural normative assessment: Translation and adaptation issues influencing the normative interpretation of assessment instruments. *Psychological Assessment, 6*(4), 304-312.

Georgas, J. (1989). Changing family values in Greece: From collectivist to individualistic. *Journal of Cross-Cultural Psychology, 20,* 80-91.

Glynn, L. M., Christenfeld, N., & Gerin, W. (1999). Gender, social support, and cardiovascular responses to stress. *Psychosomatic Medicine, 61,* 234–242.

Goffman, E. *(*1963). *Stigma: Notes on the management of spoiled identity.* Englewood Cliffs, NJ: Prentice-Hall.

Goldzweig, G., Andritsch, E., Hubert, A., Walach, N., Perry, S., Brenner, B., & Baider, L. (2009). How relevant is marital status and gender variables in coping with colorectal cancer? A sample of middle-aged and older cancer survivors. *PSYCHO-ONCOL*, *18*(8), 866-874.

Goodkin, K., Wilkie, F. L., Concha, M., Hinkin, C. H., Symes, S., & Baldewicz, T. T. (2001). Aging and neuro-AIDS conditions and the changing spectrum of HIV-I-associated morbidity and mortality. *Journal of Clinical Epidemiology, 54,* 35-43.

Graham, S., Furr, S., Flowers, S., & Burke, M. (2001). Religion and spirituality in coping with stress. *Counseling and Values, 46*, 2-13.

Greeff, M., Phetlhu, R., Makoae, L. N., Dlamini, P. S., Holzemer, W. L., Naidoo, J. Kohi, T. W., Uys, L. R., & Chirwa, M. L. (2008). Disclosure of HIV status: experiences and perceptions of persons living with HIV/AIDS and nurses involved in their care in 5 African countries. *Qualitative Health Research, 8*(3), 311-324.

Greer, S., Moorey, S., & Baruch, J. D. R., Watson, M., Robertson, B.M., Mason, A., Rowden, L., Law, M.G., Bliss, J. M. (1992). Adjuvant psychological therapy for patients with cancer: A prospective randomized trial. *British Medical Journal, 304,* 675- 680.

Grumann, M. M., & Spiegel, D. (2003). Living in the face of death: interviews with 12 terminally-ill women on home hospice care. *Palliative and Supportive Care, 1,* 23-32.

Hagedoorn, M., Kuijer, R. G., Buunk, B. P., DeJong, G. M., Wobbes, T., & Sanderman, R. (2000). Martial satisfaction in patients with cancer: Does support from intimate partners benefit those who need it the most? *Health Psychology, 19*, 274-282.

Hall, V. P. (1999). The relationship between social support and health in gay men with HIV/AIDS: An integrative review. *Journal of the Association of Nurses in AIDS Care, 10*(3), 74-86.

Halstead, M. T., & Hull, M. (2001). Struggling with paradoxes: The process of spiritual development in women with cancer. *Oncology Nursing Forum, 28*, 1534-1544.

Hamra, M., Ross, M. W., Karuri, K., Orrs, M., & D'Agostino, A. (2005). The relationship between expressed HIV/AIDS-related stigma and beliefs and knowledge about care and support of people living with AIDS in families caring for HIV-infected children in Kenya. *AIDS Care, 17*(7), 911-922.

Harris, A. H. S., Thoresen, C. E., McCullough, M. E., & Larson, D. B. (1999). Spiritually and religiously-oriented health interventions. *Journal of Health Psychology, 4*, 413-434.

Harrison, M. O., Harold, G. K., Hays, J. C., Eme-Akwari, A. G., & Pargament, K. I. (2001). The epidemiology of religious coping: A review of recent literature. *International Review of Psychiatry, 13,* 86-93.

Hays, R. B., Turner, H., & Coates, T. J. (1992). Social support, AIDS-related symptoms, and depression among gay men. *Journal of Consulting and Clinical Psychology, 60,* 463-469.

Heatherton, T. F., Kleck, R. E., Hebl, M. R., & Hull, J. G. (Eds.). (2000). *The social psychology of stigma*. New York: The Guilford Press.

Heckman, T. G. (2003). The Chronic illness Quality of Life (CIQOL) Model: Explaining life satisfaction in people living with HIV disease. *Health Psychology, 22*(2), 140-147.

Heckman, T. G., & Anderson, E. (2002). *The chronic illness quality of life model: A framework to explain life satisfaction among persons living with HIV/AIDS*. Paper presented at the Annual Conference of the Society of Behavioral Medicine, Washington, DC.

Heckman, T. G., Kochman, A., & Sikkema, K. J. (2002). Depressive symptoms in older adults living with HIV disease: Application of the chronic illness Quality of life model. *Journal of Mental Health and Aging, 8,* 267-279.

Heckman, T. G., Somali, A. M., Peters, J., Walker, L., Otto-Salaj, L., Galdabini, C. A., & Kelly, J. A. (1998). Barriers to care among persons living with HIV/AIDS in urban and rural areas. *AIDS Care, 10*, 365-375.

Heim, E., Valach, L., & Schaffner, L. (1997). Coping and psychosocial adaptation: Longitudinal effects over time and stages in breast cancer. *Psychosomatic Medicine, 59,* 408-418.

Helgeson, V. S., & Cohen, S. (1996). Social support and adjustment to cancer: Reconciling descriptive, correlational, and intervention research. *Health Psychology, 15,* 135-148.

Helgeson, V. S., Cohen, S., Schulz, R., & Yasko, J. (2000). Group support interventions for women with breast cancer: who benefits from what? *Health Psychology, 19*, 107-114.

Herbert, T. B., & Cohen, S. (1993). Stress and immunity in humans: a meta-analytic review. *Psychosomatic Medicine, 55*, 364–379.

Herek, G. M. (1999). AIDS and stigma. *American Behavioral Scientist, 42*, 1106-1116.

Herek, G. M., Gillis, J. R., & Cogan, J. C. (1999). Psychological sequelae of hate-crime victimization among lesbian, gay and bisexual adults. *Journal of Consulting and Clinical Psychology, 67,* 945-951.

Hobfoll, S. E. (1998). *Stress, culture, and community*: *The psychology and philosophy of stress*. New York: Plenum.

Hobfoll, S. E., & Stokes, J. P. (1988). The process and mechanism of social support. In S. W. Duck (Ed.), *The handbook of research in personal relationships* (pp. 497–517). London: Wiley.

Hofstede, G. (1991). *Cultures and organizations: Software of the mind,* Macmillan, London.

Hofstede,G. (1984). *Culture's consequences: International differences in work related values.* Sage, Beverly Hills, CA.

Holland, J. C., & Alici, Y. (2010). Management of distress in cancer patients. *Journal of Supportive Oncology, 8*, 4-12.

Houldin, A. D., & Lewis, F. M. (2006). Salvaging their normal lives: a qualitative study of patients with recently diagnosed advanced colorectal cancer. *Oncology Nursing Forum, 33,* 719-725.

House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science, 241,* 540-545.

Hui, C. H., & Triandis, H. C. (1986). Individualism-collectivism: A study of cross-cultural researchers. *Journal of Cross Cultural Psychology, 17,* 225-248.

International Test Commission (2010). *International Test Commission Guidelines for Translating and Adapting Tests.* Retrieved from http://www.intestcom.org.

Irwin, M. (2002). Psychoneuroimmunology of depression: Clinical implications. *Brain Behavior and Immunity, 16*, 1-16.

Jacobs, L. M., Burns, K., & Bennett, J. B. (2008). Trauma death: views of the public and trauma professionals on death and dying from injuries. *Arch Surg., 143*(8), 730-735.

Jacobsen, P. B. (2009). Promoting evidence-based psychosocial care for cancer patients. *Psycho-oncology, 18,* 6–13.

Jacoby, A. (2005). Epilepsy and social identity: The stigma of a chronic neurological disorder. *The Lancet Neurology, 4*(3), 171-178.

Jenkins, R. A. (1995). Religion and HIV: Implications for research and intervention. *Journal of Social Issues, 51,* 131-144.

Jenkins, R. A., & Pargament, K. I. (1995). Religion and spirituality as resources for coping with cancer. In B. Curbow & M. R. Somerfield (Eds.), *Psychosocial resource variables in cancer studies: Conceptual and measurement issues* (pp. 51-74). Binghamton, NY: Haworth Press.

Jim, H. S., Richardson, S. A., Golden-Kreutz, D. M., & Andersen, B. L. (2006). Strategies used in coping with a cancer diagnosis predicts meaning in life for survivors. *Health Psychology, 25*, 753-761.

Johnson, J. (1982). The effects of a patient education on persons with chronic illness. *Cancer Nursing, 5*(2), 117-123.

Johnson, S. C., & Spilka, B. (1991). Coping with breast cancer: The role of clergy and faith. *Journal of Religion and Health, 30*, 21-33.

Jones, E., Farina, A., Hastorf, A., Markus, H., Miller, D., & Scott, R. (1984). *Social stigma: The psychology of marked relationships*. New York: Freeman.

Kaczorowski, J. M. (1989). Spiritual well-being and anxiety in adults diagnosed with cancer. *The Hospice Journal, 5*(3), 105-115.

Kalichman, S. C. (1995). *Understanding AIDS: A guide for mental health professionals.* Washington, DC: American Psychological Association.

Kalichman, S. C. (2000). Couples with HIV/AIDS. In K. B. Schmaling & T. Goldman (Eds.), *The psychology of couples and illness: Theory, research, and practice (pp. 171-190).* Washington, DC: American Psychological Association.

Kalichman, S. C., Dimarco, M., Austin, J., Luke, W., & Difonzo, K. (2003). Stress, social support, and HIV-status disclosure to family and friends among HIV-positive men and women. *Journal of Behavioral Medicine, 26*(4), 315-332.

Kalichman, S. C., Heckman, T. G., Kochman, A., Sikkema, K., & Bergholte, J. (2000). Depression and thoughts of suicide among middle aged and older persons living with HIV/AIDS. *Psychiatric services, 51,* 903-907.

Kaplar, M., Wachholtz, A., & O'Brien, W. (2004). The effect of religious and spiritual interventions on the biological, psychological, and spiritual outcomes of oncology patients: A meta analytic review. *J Psychosoc Oncol, 22,* 39–44.

Kaspersen, M., Matthiesen, S. B., & Gotestam, K. G. (2003). Social network as a moderator in the relation between trauma exposure and trauma reactions: A survey among UN soldiers and relief workers. *Scandinavian Journal of Psychology, 44,* 415-423.

Katakis, C. D. (1984). *Oi tris tautotities tis Ellinikis oikogenoias [The three identities of Greek family].* Athens, Greece: Kedros.

Keefe, F. J., Ahles, T. A., Porter, L. S., Sutton, L. M., McBride, C. M., Pope, M. S. McKinstry, E. T., Furstenberg, C. P., Dalton, J., & Baucom, D. H. (2003). The self-efficacy of family caregivers for helping cancer patients manages pain at end-of-life. *Pain, 103,* 15-162.

Kelly, J. A., Lawrence, J. S., Smith, S., Hood, H. V., & Cook, D. J. (1987). Stigmatization of AIDS patients by physicians. *American Journal of Public Health, 77,* 789-791.

Kendall , M.G., & Stuart, A. (1958). *The advanced theory of statistics. Occupational Medicine, 53,* 191-200. doi: 10.1093/occmed/kqg038.

Kershaw, T., Northouse, L., Krittpracha, C., Schafenacker, A., & Mood, D. (2004). Coping strategies and quality of life in women with advanced breast cancer and their family caregivers. *Psychology and Health, 19*, 139-155.

Khan, J. M. (1996). *Validation of Beck Depression Inventory*. Department of Psychology. University of Peshawar.

King, K. B., Reis, H. T., Porter, L. A., & Norsen, L. H. (1993). Social support and long-term recovery from coronary artery surgery: Effects on patients and spouses. *Health Psychology, 12*, 56-63.

Kip, E., Ehlers, V. J, & van der W. D. (2009). Patients' adherence to antiretroviral therapy in Botswana. *J Nurs Scholarsh*, *41*(2),149-157.

Klauer, T., & Winkeler, M. (2002). Gender, mental health status, and social support during a stressful event. In G. Weidner, M. Kopp, & M. Kristenson (Eds.), *Heart disease: Environment, stress, and gender* (pp. 223-236). Amsterdam: IOS Press.

Knafl, G. J., Bova, C. A., Fennie, K., O'Malley, J., Dieckhaus, K., & Williams, A. (2008). An analysis of electronically monitored adherence to antiretroviral medications. *AIDS Behav., 14(4), 755-768.* doi: 10.1007/s10461-008-9512-z.

Knoll, N., & Schwarzer, R. (2002). Gender and age differences in social support: A study on East German refugees. In G. Weidner, M. Kopp, & M. Kristenson

(Eds.), *Heart disease: Environment, stress, and gender.* (Vol. 3, pp. 198-210). Amsterdam: IOS Press.

Koenig, H. G., McCullough, M. E., & Larson, D. E. (Eds.). (2001). *Handbook of religion and health.* Oxford: Oxford University Press.

Kristeller, J. L., Zumbrun, C. S., Schilling, R. F. (1999). 'I would if I could': How oncologists and oncology nurses address spiritual distress in cancer patients. *Psychooncology, 8,* 451-458.

Kuijer, R. G., Ybema, J. F., Buunk, B. P., De Jong, G. M., Thijs–Boer, G., & Sanderman, R. (2000). Active engagement, protective buffering, and overprotection: Three ways of giving support by intimate partners of patients with cancer. *Journal of Social and Clinical Psychology, 19,* 256-275.

Kuuppeloma¨ki, M. (1999). Cancer patients' experiences of suffering and factors supporting their coping. European *Journal of Oncology Nursing, 3*, 48-50.

Lawton, J. (2000). *The dying process: Patients' experiences of palliative care.* London: Routledge.

Lazarus, R. S. (1999). *Stress and emotion: a new synthesis.* New York: Springer Publishing.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer Publishing.

Lee, R. S., Kochman, A., & Sikkema, K. J. (2002). Internalized stigma among people living with HIV-AIDS. *AIDS and Behavior, 6*, 309-319.

Leserman, J., Jackson, E. D., Petitto, J. M., Golden, R. N., Silva, S. G., & Perkins, D. O. Cai, J., Folds, J. D., Evans, D. L. (1999). Progression to AIDS: the effects of stress, depressive symptoms, and social support. *Psychosomatic Medicine, 61*, 397-406.

Leserman, J., Petitto, J. M., Perkins, D. O., Folds, J. D., Golden, R. N., & Evans, D. L. (1997). Severe stress, depressive symptoms, and changes in lymphocyte subsets in human immunodeficiency virus-infected men: A 2-year follow up. *Archives of General Psychiatry, 54*, 279-285.

Lester, P., Chesney, M., Cooke, M., Whalley, P., Perez, B., Petru, A., Dorenbaum, A., & Wara, D. (2002). Diagnostic disclosure and HIV-infected children: how parents decide when and what to tell. *Clinical Child Psychology and Psychiatry, 7*(1), 85-99.

Lethborg, C., Aranda, S., Bloch, S., & Kissane, D. (2006). The role of meaning in advanced cancer–integrating the constructs of assumptive world, sense of coherence and meaning-based coping. *Journal of Psychosocial Oncology, 24*, 27-42.

Levin,S. & Van Laar, C. (Eds.). (2006). *Stigma and group Inequality*.Mahwah, NJ: Erlbaum.

Levy, S. M., Herberman, R. B., Whiteside, T., Sanzo, K., Lee, J., & Kirkwood, J. (1990). Perceived social support and tumor estrogen/progesterone receptor status as predictors of natural killer cell activity in breast cancer patients. *Psychosomatic Medicine, 52,* 73-85.

Li, L., Lee, S. J., Thammawijaya, P., Jiraphongsa, C., & Rotheram-Borus, M. J. (2009). Stigma, social support, and depression among people living with HIV in Thailand. *AIDS Care, 21*(8), 1007-1013.

Lima, V. D., Harrigan, R., Murray, M., Moore, D. M., Wood, E., Hogg, R. S., & Montaner, J. S. (2008). Differential impact of adherence on long-term treatment response among naive HIV-infected individuals. *AIDS, 22,* 2371-2380.

Limandri, B., & Boyle, D. (1978). Instilling hope. *American Journal of Nursing, 78*, 79-80.

Lin, H. R., & Bauer-Wu, S. M. (2003). Psycho-spiritual well-being in patients with advanced cancer: An integrative review of the literature. *Journal of Advance Nursing, 44,* 69-80.

Linden, W., Stossel, C., & Maurice, J. (1996). Psychosocial interventions for patients with coronary artery disease. A meta-analysis. *Achieves of International Medical, 156*, 745-52.

Lindqvist, O., Widmark, A., & Rasmussen, B. H. (2006). Reclaiming wellness – living with bodily problems, as narrated by men with advanced prostate cancer. *Cancer Nursing, 29,* 327-337.

Lubkin, I. M., & Larsen, P. D. (2006). *Chronic Illness, impact and interactions* (6th ed.). Canada: Jones & Bartlett, publishers, Inc.

Luoma, M. L., & Hakamies-Blomqvist, L. (2004). The meaning of quality of life in patients being treated for advanced breast cancer: a qualitative study. *Psychooncology, 13,* 729-739.

Luszczynska, A., Sarkar, Y., & Knoll, N. (2007). Received social support, self-efficacy, and finding benefits in disease as predictors of physical functioning and adherence to antiretroviral therapy. *Patient Education and Counseling, 66*(1), 37-42.

Lutgendorf, S. K., Anderson, B., Larsen, K., Buller, R. E., & Sorosky, J. I. (1999). Cognitive processing, social support, coping, and distress in gynecologic cancer patients. *Cancer Research Therapy and Control, 8*, 123-137.

Lutgendorf, S. K., Antoni, M. H., Ironson, G., Starr, K., Costello, N., Zuckerman, M., Klimas, N., Fletcher, M. A., & Schneiderman, N. (1998). Changes in cognitive coping skills and social support during cognitive behavioral stress management intervention and distress outcomes in symptomatic human immunodeficiency virus (HIV) seropositive gay men. *Psychosomatic Medicine, 60,* 204-214.

Maier, S. F., Watkins, L. R., & Fleshner, M. (1994). Psychoneuroimmunology: the interface between behavior, brain, and immunity. *American Psychology, 49*, 1004-1017.

Maj, M. (1990). Psychiatric aspects of HIV-1 infection and AIDS. *Psychological Medicine, 20,* 547-563.

Major, B. N., & O'Brien, L. T. (2005). The social psychology of stigma. *Annual Review of Psychology, 56* (1), 393-421.

Malcolm, A., Aggleton, P., Bronfman, M., Galvao, J., Mane, P., & Verrall, J. (1998). HIV-related stigmatization and discrimination: Its forms and contexts. *Critical Public Health, 8,* 347-370.

Marini, I., Glover-Graf, N. M., Millington, M. J., (2012). *Psychosocial Aspects of Disability: Insiders perspectives & Counselling Strategies*. New York: Springer.

Massie, M. J. (2004). Prevalence of depression in patients with cancer. *J Natl Cancer Inst Monogr, 32*, 57-71.

Maton, K. I. (1989). The stress-buffering role of spiritual support: Cross sectional and prospective investigations. *Journal for the Scientific Study of Religion, 28,* 310-323.

Matthews, D. A. (1997). Religion and spirituality in primary care. *Mind/Body Medicine, 2*, 9-19.

Mattlin, J. A., Wethington, E., & Kessler, R. C. (1990). Situational determinants of coping and coping effectiveness. *Journal of health and social behavior, 31,* 103-122.

McCain, N. L., & Cella, D. F. (1995). Correlates of stress in HIV disease. *Western Journal of Nursing Research, 17,* 141-155.

McClain, C. S., Rosenfled, B., & Breitbart, W. (2003). Effect of spiritual well-being on end-of-life despair in terminally ill cancer patients. *Lancet, 361*, 1603-1607.

McCullough, M. E., Pargament, K. I., & Thoresen, C. E. (2000). *Forgiveness: Theory, research, and practice*. New York: Guilford Press.

McDowell, M. I., & Newell. C. (2nd ed.). (1987). *Measuring health: A guide to rating scales and questionnaires.* New York: Oxford University Press.

McDowell, T. L., & Serovich, J. M. (2007). The effect of perceived and actual social support on the mental health of HIV-positive persons. *AIDS Care, 19*, 1223-1229.

McEwen, B. S. (1998). Protective and damaging effects of stress mediators. *N. Engl. J. Med, 338*, 171-79.

McIntosh, D. N., & Spilka, B. (1990). Religion and physical health: The role of personal faith and control beliefs. In M. L. Lynn & D. O. Moberg (Eds.), *Research in the Social Scientific Study of Religion.* (*Vol.* 2, pp. 167-194). Greenwich, CT: JAI Press.

McKay, R. B., Breslow, M. J., Sangster, R. L., Gabbard, S. M., Reynolds, R. W., Nakamoto, J. M., & Tarnai, J. (1996). Translating survey questionnaires: lessons learned. *New directions for evaluation, 70*, 93-105.

McKinley, E. D., Garrett, J. M., Evans, A. T., & Danis, M. (1996). Differences in end-of-life decision making among black and white ambulatory cancer patients. *J Gen Intern Med. 11*(11), 651-656.

Mellins, C. A., Havens, J. F., McCaskill, E. O., Leu, C. S., Brudney, K., & Chesney, M. A. (2002). Mental health, substance use and disclosure are significantly associated with the medical treatment adherence of HIV-infected mothers. *Psychology, Health & Medicine 7*(4), 451-460.

Miller, D., Riccio, M. (1990). Nonorganic psychiatric and psychosocial syndromes associated with HIV-1 infection and disease. *AIDS, 4,* 381-388.

Miller, J. (1985). Inspiring hope. *American journal of Nursing, 86*, 22-25.

Mueen, B., Khurshid, M., Hassan, I., (2006). Relationship of Depression and Assertiveness in Normal Population and Depressed Individuals. *Internet Journal of Medical Update*, *1*(2), 10-17.

Mullen, P. M., Smith, R. M., & Hill, E. W. (1993). Sense of coherence as a mediator of stress for cancer patients and spouses. *Journal of Psychosocial Oncology, 11,* 23-46.

Murray, L. K., Semrau, K., McCurley, E., Thea, D., Scott, N., Mwiya, M., Kankasa, C., Bass, J., Bolton, P. (2009). Barriers to acceptance and adherence of antiretroviral therapy in urban Zambian women: a qualitative study. *AIDS Care, 21*(1), 78-86.

Mutchler, M. G., Bogart, L. M., Elliott, M. N., McKay, T., Suttorp, M. J., & Schuster, M. A. (2008). Psychosocial correlates of unprotected sex without disclosure of HIV-positivity among African-American, Latino, and White men who have sex with men and women. *Archives of Sexual Behavior, 37*(5), 736-747.

National Board of Health. (2005). *The cancer plan II: Recommendations to improvements of the efforts in the cancer field*. Copenhagen: The National Board of Health.

National Comprehensive Cancer Network (2009). NCCN clinical practice guidelines in oncology. Distress Management. *Journal of the national comprehensive cancer network*, *8*, 448-485.

Nelson, C. J., Nandy, N., & Roth, A. J. (2007). Chemotherapy and cognitive deficits: mechanisms, findings, and potential interventions. *Palliat Support Care, 5,* 273-280.

Nordin, K., & Glimelius, B. (1998). Reactions to gastrointestinal cancer: Variation in mental adjustment and emotional well-being over time in patients with different prognoses. *Psycho-oncology, 7*, 413-423.

Norris, F. H., & Kaniasty, K. (1996). Received and perceived social support in times of stress: A test of the deterioration deterrence model. *Journal of Personality and Social Psychology, 3,* 498-511.

Nowotny, M. L. (1989). Assessment of hope in patients with Cancer: Development of an instrument. *Oncology Nursing Forum*, 16 (1), 57-61.

Nunnally, J. C. (1978*). Psychometric theory* (2nd ed.). New York: McGraw-Hill.

Nunnally, J. C. (1967). *Psychometric theory*. New York: McGraw-Hill. *Occupational Medicine,* ***53*****,** 191-200.

Ohlen, J., Bengtsson, J., Skott, C., & Segesten, K. (2002). Being in a lived retreat–embodied meaning of alleviated suffering. *Cancer Nursing, 25,* 318-325.

Osse, B. H., Vernooij-Dassen, M. J., Schade, E., & Grol, R. P. (2005). The problems experienced by patients with cancer and their needs for palliative care. *Supportive Care in Cancer, 13,* 722-732.

Ozolins, U., (2009). Back translation as a means of giving translation a voice. *Interpretting & Translation*, *1*(2).

Pakenham, K. I., & Rinaldis, M. (2001). The role of illness, resources, appraisal, and coping strategies in adjustment to HIV/AIDS: The direct and buffering effects. *Journal of Behavioral Medicine, 24*(3), 259-279.

Pargament, K. I. (1997). *Psychology of religion and coping: Theory, research, practice*. New York: Guilford Press.

Pargament, K. I., Ensing, D. S., Falgout, K., Olsen, H., Reilly, B., Haitsma, K. V., & Warren, R. (1990). God help me: (1): Religious coping efforts as predictors of the outcomes to significant negative life events. *American Journal of Community Psychology, 18*, 793-823.

Pargament, K. I., Ishler, K., Dubow, E., Stanik, P., Rouiller, R., Crowe, P., Cullman, E. P., Albert, M., & Royster, B. J. (1994). Methods of religious coping with the Gulf War: Cross-sectional and longitudinal analyses. *Journal of Scientific Study of Religion, 33,* 347-361.

Pargament, K. I., Koenig, H., Tarakeshwar, N., & Hahn, J. (2001). Religious struggle as a predictor of mortality among medically ill elderly patients. *Achieves of internal medicine, 161,* 1881-1885.

Pargament, K. I., Zinnbauer, B. J., Scott, A. B., Butter, E. M., Zerowin, J., & Stanik, P. (1998). Red flags and religious coping: Identifying some religious warning signs among people in crisis. *Journal of Clinical Psychology, 59,* 1335-1348.

Park, C. L., & Folkman, S. (1997). Meaning in the context of stress and coping. *Review of General Psychology, 1*, 115-144.

Pelto, P. J. (1968). The difference Between “Tight” and “loose” societies. *Transaction*, 37-40.

Perczek, R. E., Burke, M. A., Carver, C. S., Krongrad, A., & Terris. M, K. (2002). Facing a prostate cancer diagnosis: Who is at risk for increased distress? *Cancer, 94,* 2923-2929.

Peters-Golden, H. (1982). Breast cancer; varied perceptions of social support in the illness experience. *Social Science and Medicine, 16*, 483- 491.

Phelan, J. C., Link, B. J., Dovidio, J. F. (2008). Stigma and prejudice: One animal or two? *Social Science & Medicine*, 67, 358-367.

Phelps, A. C., Maciejewski, P. K. Nilsson, M. Balboni, T. A., Wright, A. A., Paulk, M. E., Trice, E., Schrag, D., Peteet, J. R., Block, S. D., & Prigerson, H. G. (2009). Religious coping and use of intensive life-prolonging care near death in patients with advanced cancer. *JAMA, 301*(11), 1140-1147.

Pinkerton, S. D., & Galletly, C. L. (2007). Reducing HIV transmission risk by increasing serostatus disclosure: A mathematical modeling analysis. *AIDS and Behavior, 11*(5), 698-705.

Powell, L. H., Shahabi, L., & Thoresen, C. E. (2003). Religion and spirituality: Linkages to physical health. *Am Psycho, 58,* 36-52.

Ransom, S., Jacobsen, P. B., Schmidt, J. E., & Andrykowski, M. A. (2005). Relationship of problem-focused coping strategies to changes in quality of life following treatment for early stage breast cancer. *J of Pain and Symptom Management, 30*, 243-253.

Reece, M., Tanner, A. E., Karpiak, S. E., & Coffey, K. (2007). The Impact of HIV-Related Stigma on HIV Care and Prevention Providers. *Journal of HIV/AIDS & Social Services, 6*(3), 55-73.

Reed, P. (1987). Spirituality and well-being in terminally ill hospitalized adults. *Research in Nursing and Health, 10,* 335-344.

Reliability and validity of instruments measuring job satisfaction—a systematic view.

Revenson, T. A. (1994). Social support and marital coping in chronic illness. *Annals of Behavioral Medicine, 16*(2), 122-130.

Reynolds, P., & Kaplan, G. A. (1990). Social connections and risk for cancer: Prospective evidence from the Alameda county study. *Behavioral Medicine, 16,* 101-110.

Richards, T. A., Acree, M., & Folkman, S. (1999). Spiritual aspects of loss among partners of men with AIDS: Post bereavement follow-up. *Death Stud., 23*, 105-127.

Roesch, S. C., Adams, L., Hines, A., Palmores, A., Vyas, P., Tran, C., Pekin, S., & Vaughn, A. A. (2005). Review coping with prostate cancer: A meta-analytic review. *Journal of Behavioral Medicine, 28,* 281-293.

Rogers, M. E., Hansen, N. B., Levy, B. R., Tate, D. C., & Sikkema, K. J. (2005). Optimism and coping with loss in bereaved HIV-infected men and women. *Journal of Social and Clinical Psychology, 24,* 341-360.

Rounds, K. A. (1988). AIDS in rural areas: Challenges to providing care. *Social Work, 33,* 257-261.

Rustøen, T., Cooper, B. A., & Miaskowski, C. (2010). The importance of hope as a mediator of psychological distress and life satisfaction in a community sample of cancer patients. *Cancer Nurs., 33*(4), 258-67.

Rutledge, S. E. (2007). Enacting personal HIV disclosure policies for sexual situations: HIV-positive gay men's experiences. *Qualitative Health Research 17*(8), 1040-1059.

Rydahl-Hansen, S. (2003). *Hospitalized patients' experienced suffering in life with incurable cancer.* Bispebjerg Hospitals Forlag, Copenhagen.

Rydahl-Hansen, S. (2005). Hospitalized patients experienced suffering in life with incurable cancer. *Scandinavian Journal of Caring Science, 19,* 213-222.

Sandelowski, M., Lambe, C., & Barroso, J. (2004). Stigma in HIV-positive women. *Journal of Nursing Scholarship, 36*, 122-128.

Sanjobo, N., Frich, J., & Fretheim, A. (2008). Barriers and facilitators to patients/ adherence to antiretroviral treatment in Zambia: a qualitative study. *SAHARA Journal*, *5*(3), 136-143.

Saunders, C. (Ed.) (2006). *Cicely Saunders selected writings* 1958–2004. Oxford: University Press, Oxford.

Scandlyn, J., (2000). When AIDS became a chronic disease. *West J Med. 172*(2), 130-133. doi: 10.1136/ewjm.172.2.130.

Schmitz, M. F., & Crystal, S. (2000). Social relations, coping, and psychological distress among persons with HIV/AIDS. *Journal of Applied Social Psychology, 30*, 665-685.

Schneiderman, N., Antoni, M. H., Saab, P. G., & Ironson, G. (2001). Health psychology: psychosocial and biobehavioral aspects of chronic disease management. *Annual Review of Psychology, 52*, 555-80.

Schwarzer, R., Knoll, N., & Rieckmann, N. (2004). Social support. In A. Kaptein & J. Weinman (Eds.), *Introduction to health psychology* (pp. 158-182). Oxford, England: Blackwell.

Sears, S. R., Woodward, J. T., & Twillman, R. K. (2007). What do I have to lose? effects of a psycho-educational intervention on cancer patient preference for resuscitation. *J Behav Med., 30*(6), 533-544.

Serovich, J. M., Kimberly, J. A., Mosack, K. E., & Lewis, T. L. (2001). The role of family and friend social support in reducing emotional distress among HIV-positive women. *AIDS Care, 13*(3), 335-341.

Serovich, J. M., Oliver, D. G., Smith, S. A., & Mason, T. L. (2005). Methods of HIV disclosure by men who have sex with men to casual sexual partners. *AIDS Patient Care and STDs, 19*(12), 823-832.

Sherman, A. C., Simonton, S., Adams, D. C., Vural, E., & Hanna, E. (2000). Coping with head and neck cancer during different phases of treatment. *Head and Neck, 22,* 787-793.

Shuter, J., Sarlo, J., Kanmaz T., Rode, R., & Zingman, B. (2007). HIV-infected patients receiving lopinavir/ritonavir-based antiretroviral therapy achieve high rates of virologic suppression despite adherence rates less than 95%. *J Acquir Immune Defic Syndr.,* *45*(1), 4-8.

Shweder, R. A., & LeVine, R. A. (Eds). (1984). *Cultural theory: Essays on mind, self and emotion.* New York: Cambridge University Press.

Siegel, K., & Meyer, I. H. (1999). Hope and resilience in suicide ideation and behavior of gay and bisexual men following notification of HIV infection. *AIDS Educ Prev., 11*, 53-64.

Siegel, K., & Schrimshaw, E. W. (2002). The perceived benefits of religious and spiritual coping among older adults living with HIV/AIDS. *Journal of Scientific Study of Religion, 41*, 91-102.

Silver, E. J., Bauman, L. J., Camacho, S., & Hudis, J. (2003). Factors associated with psychological distress in urban mothers with late-stage HIV/AIDS. *AIDS and Behavior,* 7, 421-431.

Silvestri, G. A., Knittig, S., Zoller, J. S., & Nietert, P. J. (2003). Importance of faith on medical decisions regarding cancer care. *J Clin Oncol., 21*(7), 379-1382.

Simoni, J., & Pantalone, D. (2004). Secrets and safety in the age of AIDS: does HIV disclosure lead to safer sex? *International Aids Society, USA, 12*(4), 109-118.

Skogmar, S., Shakely, D., Lans, M., Danell, J., Anderson, R., Tshandu, O. A., Roberts, S., & Venter, W. D. F. (2006). Effect of antiretroviral treatment and counseling on disclosure of HIV-serostatus in Johannesburg, South Africa. *AIDS Care: Psychological and Socio-medical Aspects of AIDS/HIV, 18*(7), 725-730.

Smith, E. D., Stefanek, M. E., Joseph, M. V., Verdieck, M. J., Zabora, J. R., & Fetting, J. H. (1993). Spiritual awareness, personal perspective on death, and psychosocial distress among cancer patients: An initial investigation. *Journal of Psychosocial Oncology, 11,* 89-103.

Smith, E. M., Gomm, S. A., & Dickens, C. M. (2003). Assessing the independent contribution to quality of life from anxiety and depression in patients with advanced cancer. *Palliative Medicine, 17,* 509-513.

Smith, L. E., Seltzer, M. M., Tager-Flusberg, H., Greenberg, J. S., & Carter, A. S. (2008). A comparative analysis of well-being and coping among mothers of toddlers and mothers of adolescents with ASD, *Journal of Autism and Developmental Disorders, 38,* 876-889.

Sodestrom, K. E., & Martinson, I. M. (1987). Patients' spiritual coping strategies: A study of nurse and patient perspectives. *Oncology Nursing Forum, 14*, 41-46.

Sperry, L., & Shafranske, E. P. (2005). *Spiritually oriented psychotherapy.* Washington, DC: American Psychological Association.

Spiegel, D., Bloom, J. R., Kraemer, H. C., & Gottheil, E. (1989). Effect of psychosocial treatment on survival of patients with metastatic breast cancer. *Lancet, 2,* 888-891.

Spilka, B., & Schmidt, G. (1983). "General attribution theory for the psychology of religion: The influence of event-character on attribution to God". *Journal of the Scientific Study of Religion, 22,* 326-40.

Steger, M., & Frazier, P. (2005). Meaning in life: One link in the chain from religiousness to well-being. *Journal of Counseling Psychology, 52,* 574-582.

Steward, W. T., Herek, G. M., Ramakrishna, J., Bharat, S., Chandy, S., Wrubel, J., & Ekstrand, M. L. (2008). HIV-related stigma: adapting a theoretical framework for use in India. *Soc Sci Med., 67*, 1225-1235.

Stirratt, M. J., Remien, R. H., Smith, A., Copeland, O. Q., Dolezal, C., Krieger, D., SMART Couples Study Team. (2006). The role of HIV serostatus disclosure in antiretroviral medication adherence. *AIDS and Behavior, 10*(5), 483-493.

Sulmasy, D. P. (2006). Spiritual issues in the care of dying patients: "… it's okay between me and god”. *JAMA, 296*(11), 1385-1392.

Swindells, S., Mohr, J. C., Berman, S., Squier, C., Wangener, M. M., & Singh, N. (1999). Quality of life in patients with human immunodeficiency virus infection: Impact of social support, coping style, and hopelessness. *International Journal of STD & AIDS, 10,* 383-391.

Tarakeshwar, N., & Pargament, K. I. (2001). Religious coping in families of children with autism. *Focus on Autism and Other Developmental Disabilities, 16*, 247-260.

Tarakeshwar, N., Vanderwerker, L. C., Paulk, E., Pearce, M. J., Kasl, S.V., & Prigerson, H. G. (2006). Religious coping is associated with the quality of life of patients with advanced cancer. *Journal of Palliative Medicine, 9*(3), 646-657.

Telch, C. F., & Telch, M. J. (1986). Group coping skills instruction and supportive group therapy for cancer patients: A comparison of strategies. *Journal of Consulting and Clinical Psychology, 54*, 802-808.

Thoits, P. A. (1986). Social support as coping assistance. *Journal of Consulting and Clinical Psychology, 54,* 416-423.

Thombre, A., Sherman, A. C., & Simonton, S. (2010). Religious Coping and Posttraumatic Growth Among Family Caregivers of Cancer Patients in India. *Journal of Psycho Social Oncology, 28,* 173-188.

Thorne, C., Newell, M. L., & Peckham, C. S. (2000) Disclosure of diagnosis and planning for the future in HIV-affected families in Europe. *Child: Care, and Health Development, 26*, 29-40.

Tix, A. P., & Frazier, P A. (1998). The use of religious coping during stressful life events: Main effects, moderation, and mediation. *Journal of Consulting & Clinical Psychology, 66,* 411-422.

Triandis, H. C. (1972). *The analysis of subjective culture.* New York: Wiley.

Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review, 96*(3), 506-520.

Trochim, W. M. K. (2006). Convergent & Discriminant Validity. *The Research Methods Knowledge Base*. Retrieved from, http://www.socialresearchmethods.net/kb/convdisc.php.

Uno, D., Uchino, B. N., & Smith, T. W. (2002). Relationship quality moderates the effect of social support given by close friends of cardiovascular reactivity in women. *International Journal of Behavioral Medicine, 9,* 243-262.

van Saane, N. , Sluiter, J. K. ., Verbeek , J. H. & Frings-Dresen, M. H. W. (2003).

Vanable, P. A., Carey, M. P., Blair, D. C., & Littlewood, R. A. (2006). Impact of HIV-related stigma on health behaviors and psychological adjustment among HIV-positive men and women. *AIDS & Behavior, 10*(5), 473-482.

Vance, D. E. (2006). Self-rated emotional health in adults with and without HIV. *Psychological Reports, 98*, 106-108.

Vanlandingham, M., Im-em, W., & Saengtienchai, C. (2005). Community reactions to persons with HIV/AIDS and their parents: An analysis of recent evidence from Thailand. *Journal of Health and Social Behavior, 46,* 392-410.

Vaux, A. (1988). *Social support : Theory, research, and intervention*. New York: Praeger.

Vig, E. K., & Pearlman, R. A. (2003). Quality of life while dying: A qualitative study of terminally ill older men. *J Am Geriatric Soc, 51,* 1595-1601.

Vinokur, A. D., Threatt, B. A., Caplan, R. D., & Zimmerman, B. L. (1989). Physical and psychosocial functioning and adjustment to breast cancer: Long term follow-up of a screening population. *Cancer, 63,* 394- 405.

Vinokur, A., Schul, Y., & Caplan, R. D. (1987). Determinants of perceived social support : Interpersonal transactions, personal outlook and transient affectve state. *Journal of Personality and Social Psychology, 53*,1137-1145.

Ware, N. C., Wyatt, M. A., & Tugenberg, T. (2006). Social relationships, stigma and adherence to antiretroviral therapy for HIV/AIDS. *AIDS Care, 18,* 904–910.

Waxler-Morrison, N., Hislop, T. G., Mears, B., & Kan, L. (1991). Effects of social relationships on survival for women with breast cancer: A prospective study. *Social Science and Medicine, 33*(2), 177-183.

Webster, G. D., Brunell, A. B., & Pilkington, C. J. (2009). Individual differences in men's and women's warmth and disclosure differentially moderate couples' reciprocity in conversational disclosure. *Personality and Individual Differences, 46*(3), 292-297.

Weiner, I. B., Freedheim, D.K., Graham, J. R., Schinka, J. A., Velicer, W. F., Naglieri, J. A. (2003). *Handbook of Psychology-Assessment psychology,* (Vol, 10). New Jersey John Wiley & Sons Inc.

Wig, N., Lekshmi, R., Pal, H., Ahuja, V., Mittal, C. M., & Agarwal, S. K. (2006). The impact of HIV/AIDS on the quality of life: A cross sectional study in north India. *Indian J Med Sci*, *60*, 3-12.

Wild, D., Grove, A., Martin, M., Eremenco, S., McElroy, S., Verjee-Lorenz, A., & Erikson, P. (2005). Principles of good practice for the translation and cultural adaptation process for Patient-Reported Outcomes (PRO) Measures: Report of the ISPOR task force for translation and cultural adaptation. *Value in Health, 8*(2), 94-104.

Williams, B. R. (2004). Dying young, dying poor: a sociological examination of existential suffering among low-socioeconomic status patients. *Journal of Palliative Medicine, 7,* 27-37.

Wills, T. A. (1998). Social support. In E. A. Blechman & K. D. Brownell (Eds.), *Behavioral medicine and women: A comprehensive handbook* (pp. 118-128). New York: Guilford Press.

Wills, T. A., & Fegan, M.F. (2001). Social networks and social support. In A. Baum, T. A., Revenson & J. E. Singer (Eds.), *Handbook of health psychology* (pp. 209-234). Mahwah, NJ: Erlbaum.

Wilson, I. B., & Cleary, P. D. (1995). Linking clinical variables with health related quality of life: A conceptual model of patient outcomes. *Journal of the American Medical Association, 273,* 59-65.

Wilson, K. G., Chochinov, H. M., McPherson, C. J., LeMay, K., Allard, P., Chary, S. Gagnon, P.R., Macmillan, K., De Luca, M., O'Shea, F., Kuhl, D, Fainsinger, R. L. (2007). Suffering with advanced cancer. *Journal of Clinical Oncology, 25*, 1691-1697.

Winstead, B. A., Derlega V. J., Barbee, A. P., Sachdev, M., Antle, B., & Greene, K. (2002). Close relationships as sources of strength or obstacles for mothers coping with HIV. *Journal of Loss & Trauma, 7*(3), 157-184.

Winterling, J., Wasteson, E., Glimelius, B., Sjoden, P. O., & Nordin, K. (2004). Substantial changes in life: perceptions in patients with newly diagnosed advanced cancer and their spouses. *Cancer Nursing, 27,* 381-388.

Winterling, J., Wasteson, E., Sidenvall, B., Sidenvall, E., Glimelius, B., Sjoden, P. O., & Nordin, K. (2006). Relevance of philosophy of life and optimism for psychological distress among individuals in a stage where death is approaching. *Supportive Care in Cancer, 14,* 310-319.

Wong, L. H., van Rooyen, H., Modiba, P., Richter, L., Gray, G., McIntyre, J. A., Schetter, C. D., & Coates, T. (2009). Test and tell: correlates and consequences of testing and disclosure of HIV status in South Africa (HPTN 043 project accept). *Journal of Acquired Immune Deficiency Syndromes*, *50*(2), 215-222.

World Health Organization. (2002). *National cancer control programmes: Policies and managerial guidelines* (2nd ed.). Geneva: World Health Organization.

Wouters, E., Van, L. F., Van, R. D., & Meulemans, H. (2009). Community support and disclosure of HIV serostatus to family members by public-sector antiretroviral treatment patients in the Free State Province of South Africa. *AIDS Patient Care and STDs, 23*(5), 357-364.

Wright, A. A., Zhang, B., Ray, A., Mack, J. W., Trice, E., Balboni, T., Mitchell, S. L. Jackson, V. A., Block, S. D., Maciejewski, P. K., Prigerson, H. G. (2008). Associations between end-of-life discussions, patient mental health, medical care near death, and caregiver bereavement adjustment. *JAMA, 300(*14*),* 1665-1673.

Yehuda, S., & Mostofsky, D. I., (2006). (Eds.) *Nutrition, Stress and Medical disorders,* (Vol. 1). New Jersey, Humana Press, Inc.

Zabora, J., Brintzenhofeszoc, K., Curbow, B., Hooker, C., & Piantadosi S. (2001). The prevalence of psychological distress by cancer site. *Psycho-oncology, 10*, 19-28.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment, 52,* 30-41.

Zimet, G. D., Powell, S. S., Farley, G. K., Werkmen, S., & Berkoff, K. A. (1990). Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment, 55,* 610-617.

Zorrilla, E. P., McKay, J. R., Luborsky, L., & Schmidt, K. (1996). “Relation of stressors and depressive symptoms to clinical progression of viral illness”. *American Journal of Psychiatry, 153,* 626-635.

Zuckerman, D. M., Kasl, S. V., & Ostfeld, A. M. (1984). Psychosocial predictors of mortality among the elderly poor. *American Journal of Epidemiology, 119,* 410-423.

Zukoski, A. P., & Thorburn, S. (2009). Experiences of stigma and discrimination among adults living with HIV in a low HIV-prevalence context: a qualitative analysis. *AIDS Patient Care and STDs, 23*(4), 267-276.

Appendix A

Physical Well-being Scale (English)

Instructions: please read each statement and indicate how true each statement has been true for you during the past 7 days.

During the past seven days:

		Not at all	A little bit	Somewhat	Quite a bit	Very much
		0	1	2	3	4
1	I have a lack of energy					
2	I have nausea					
3	Because of my physical condition, I have trouble meeting the needs of my family.					
4	I have physical pain					
5	I have negative side effects from treatment					
6	I feel sick					
7	I am forced to spend time in bed.					

Appendix B1

Physical Well-being Scale (Urdu)

ہدا یات

ایچ آئی وی /ایڈز (HIV/AIDS) کے مریضوں کے مطابق درج ذیل بیانات انکی بیماری میں اہمیت رکھتے ہیں، پچھلے سات دنوں کے دوران، درج ذیل بیانات آپکے متعلق کس حد تک درست رہے۔ ہر بیان کے لیئے صرف ایک خانے میں نشان لگایئے۔

0	1	2	3	4
بالکل نہیں	بہت کم	کسی حد تک	بہت حد تک	بہت زیادہ

1 میں کمزوری محسوس کرتا ہوں۔
2 مجھے متلی /دل خراب ہونے کی شکایت ہے۔
3 اپنی جسمانی حالت کی وجہ سے میں اپنے گھر والوں /اور دوسرے قریبی لوگوں کی
ضروریات پوری کرنے میں مشکل محسوس کرتا ہوں۔
4 مجھے درد / تکلیف کی شکایت ہے۔
5 میں علاج کے منفی اثرات سے گذر رہا ہوں۔
6 میں خود کو بیمار محسوس کرتا ہوں۔
7 بیماری کی وجہ سے میرا زیادہ تر وقت بستر پر گذرتا ہے۔

Appendix B 2

Physical Well-being Scale (Urdu)

ہدا یات

کینسر کے مریضوں کے مطابق درج ذیل بیانات انکی بیماری میں اہمیت رکھتے ہیں، پچھلے سات دنوں کے دوران، درج ذیل بیانات آپکے متعلق کس حدتک درست رہے۔ ہر بیان کے لیئے صرف ایک خانے میں نشان لگائیے۔

0	1	2	3	4
بالکل نہیں	بہت کم	کسی حد تک	بہت حد تک	بہت زیادہ

1 میں کمزوری محسوس کرتا ہوں۔

2 مجھے متلی/دل خراب ہونے کی شکایت ہے۔

3 اپنی جسمانی حالت کی وجہ سے میں اپنے گھر والوں/اور دوسرے قریبی لوگوں کی ضروریات پوری کرنے میں مشکل محسوس کرتا ہوں۔

4 مجھے درد/ تکلیف کی شکایت ہے۔

5 میں علاج کے منفی اثرات سے گذر رہا ہوں۔

6 میں خود کو بیمار محسوس کرتا ہوں۔

7 بیماری کی وجہ سے میرا زیادہ تر وقت بستر پر گذرتا ہے۔

Appendix C

Disease-related Discrimination (English)

Instructions: Please answer the following questions concerning things that have happened to you since learning you have HIV/AIDS.

		Never	Rarely	Sometimes	Often
1	How often do you hide your illness from others out of fear that they might say or do something that will hurt you.	1	2	3	4
2	How often do people display negative behavior toward you once they learn of your HIV/AIDS status				
3	How often do you try to manage conversations to reduce the risk that others will learn about your HIV/AIDS status				
4	How often have you been treated badly by people because of your HIV/AIDS illness				
5	How often do you hide your HIV/AIDS status from others by passing off its symptoms to other causes (for example, colds or being stressed out)?				
6	How often do others avoid you after they learn of your HIV/AIDS status				
7	How often do you experience embarrassing and				

/or awkward social situations by trying to hide your HIV/AIDS status

8 How often are you not invited or turned away from social events because of your HIV/AIDS status

9 How often do you ask others to keep your HIV/AIDS status a secret

10 How often are you treated more negatively than people living with other serious diseases

11 How often do you avoid talking to someone in order to avoid disclosing your HIV/AIDS status

12 How often are you treated unfairly by others when they learn of your HIV/AIDS status

Appendix D1

Disease-related Discrimination (Urdu)

ہدا یات

برائے مہربانی درج ذیل سوالات کے جواب دیجئیے، یہ سوال آپ کی بیماری کینسر (Cancer) کی تشخیص کے بعد پیش آنے والے واقعات/ حالات سے متعلق ہیں۔ آپ کو درج ذیل حالات سے کتنی بار گذرنا پڑتا ہے۔ ہر بیان کے لیئے صرف ایک خانے میں نشان لگائیے۔

	4	3	2	1
آپ کو درج ذیل حالات سے کتنی بار گذرنا پڑتا ہے؟	اکثر	کبھی کبھی	بہت کم	کبھی نہیں
1-لوگوں کے تکلیف دہ رویّے (الفاظ اور عمل) کے خوف سے آپ کو اپنی بیماری چُھپانی پڑتی ہے؟				
2-آپ کی بیماری کے بارے میں جاننے کے بعد، لوگوں کا رویّہ آپ کے ساتھ برا ہو جاتا ہے؟				
3-اپنی بیماری کے بارے میں پتہ چل جانے کے خوف سے آپ بات کا رخ بدلنے کی کوشش کرتے ہیں؟				
4- کینسر کا مریض ہونے کی وجہ سے آپ کے ساتھ برا سلوک کیا جاتا ہے؟				
5-لوگوں سے اپنی بیماری چھپانے کی غرض سے، آپ، اپنی بیماری کی علامات کو، کسی دوسری وجوہات سے منسوب کرتے ہیں (مثلاً زکام یا تھکاوٹ وغیرہ)؟				
6-آپ کی بیماری کے بارے میں جاننے کے بعد، لوگ آپ سے نظریں چُراتے ہیں/ دور رہنے لگتے ہیں؟				
7-اپنی بیماری (کینسر) کی تشخیص چھپانے کی کوشش میں آپ کو شرمندگی اور تکلیف دہ حالات سے گذرنا پڑتا ہے؟				
8- کینسر کا مریض ہونے کی وجہ سے آپ کو شادی بیاہ یا دوسری تقریبات سے دور رکھا جاتا ہے (بلایا نہیں جاتا/ تقریبات میں نظر انداز کیا جاتا ہے/ تقریبات میں آپ کا لوگوں سے گھلنا ملنا پسند نہیں کیا جاتا)؟				
9-آپ لوگوں سے اپنی بیماری کو راز رکھنے کے بارے میں کہتے ہیں؟				
10-دوسری خطرناک بیماریوں کے مریضوں کی نسبت، آپ کے ساتھ (کینسر کا مریض ہونے کی وجہ سے) برا سلوک کیا جاتا ہے؟				
11-اپنی بیماری کے بارے میں پتہ چل جانے کے خوف سے آپ لوگوں سے بات کرنے سے کتراتے/ بچتے ہیں۔				
12-آپ کی بیماری کے بارے میں معلوم ہو جانے کے بعد لوگ آپ کے ساتھ ناانصافی کا سلوک کرتے ہیں۔				

Appendix D2

Disease-related Discrimination (Urdu)

ہدا یات

برائے مہربانی درج ذیل سوالات کے جواب دیجیئے، یہ سوال آپ کی بیماری ایچ آئی وی/ایڈز (HIV/AIDS) کی تشخیص کے بعد پیش آنے والے واقعات/حالات سے متعلق ہیں۔ ہر بیان کے لیئے صرف ایک خانے میں نشان لگائیے۔

	4	3	2	1
آپ کو درج ذیل حالات سے کتنی بار گذرنا پڑتا ہے؟	اکثر	کبھی کبھی	بہت کم	کبھی نہیں
1-لوگوں کے تکلیف دہ رویّے (الفاظ اور عمل) کے خوف سے آپ کو اپنی بیماری چُھپانی پڑتی ہے؟				
2-آپ کی بیماری کے بارے میں جاننے کے بعد، لوگوں کا رویّہ آپ کے ساتھ برا ہو جاتا ہے؟				
3-اپنی بیماری کے بارے میں پتہ چل جانے کے خوف سے آپ بات کا رخ بدلنے کی کوشش کرتے ہیں؟				
4- ایچ آئی وی/ایڈز کا مریض ہونے کی وجہ سے آپ کے ساتھ برا سلوک کیا جاتا ہے؟				
5-لوگوں سے اپنی بیماری چھپانے کی غرض سے، آپ، اپنی بیماری کی علامات کو، کسی دوسری وجوہات سے منسوب کرتے ہیں (مثلاً زکام یا تھکاوٹ وغیرہ)؟				
6-آپ کی بیماری کے بارے میں جاننے کے بعد، لوگ آپ سے نظریں چُراتے ہیں/ دور رہنے لگتے ہیں؟				
7-اپنی بیماری (ایچ آئی وی/ایڈز) کی تشخیص چھپانے کی کوشش میں آپ کو شرمندگی اور تکلیف دہ حالات سے گذرنا پڑتا ہے؟				
8- ایچ آئی وی/ایڈز کا مریض ہونے کی وجہ سے آپ کو شادی بیاہ یا دوسری تقریبات سے دور رکھا جاتا ہے (بلایا نہیں جاتا/ تقریبات میں نظر انداز کیا جاتا ہے/ تقریبات میں آپ کا لوگوں سے گھلنا ملنا پسند نہیں کیا جاتا)؟				
9-آپ لوگوں سے اپنی بیماری کو راز رکھنے کے بارے میں کہتے ہیں؟				
10-دوسری خطرناک بیماریوں کے مریضوں کی نسبت، آپ کے ساتھ (ایچ آئی وی/ایڈز کا مریض ہونے کی وجہ سے) برا سلوک کیا جاتا ہے؟				
11-اپنی بیماری کے بارے میں پتہ چل جانے کے خوف سے آپ لوگوں سے بات کرنے سے کتراتے/ بچتے ہیں۔				
12-آپ کی بیماری کے بارے میں معلوم ہو جانے کے بعد لوگ آپ کے ساتھ ناانصافی کا سلوک کرتے ہیں۔				

Appendix E

Barriers to Care Scale (BACS) English

Instructions: Please indicate to what extent each of the following circumstances makes it difficult for you to receive the care, services or opportunities you wish to obtain.

	No problem at all 1	Very Slight Problem 2	Somewhat of a Problem 3	Major Problem 4
(1) Long distances to medical facilities and personnel.				
(2) Medical personnel (e.g. physicians, nurses), who decline to provide direct care to persons with HIV/AIDS.				
(3) The lack of health care professionals who are adequately trained and competent in HIV/AIDS care.				
(4) The lack of transportation to access the services i need.				
(5) The shortage of psychologists, social workers and mental health counselors who can help address mental health issues.				
(6) The lack of psychological support groups for persons with HIV/AIDS				
(7) My personal financial resources.				
(8) Lack of adequate and affordable housing.				

Appendix D1

Disease-related Discrimination (Urdu)

ہدا یات

برائے مہربانی درج ذیل سوالات کے جواب دیجئے، یہ سوال آپ کی بیماری کینسر (Cancer) کی تشخیص کے بعد پیش آنے والے واقعات/ حالات سے متعلق ہیں۔ آپ کو درج ذیل حالات سے کتنی بار گذرنا پڑتا ہے۔ ہر بیان کے لیئے صرف ایک خانے میں نشان لگائیے۔

	4	3	2	1
آپ کو درج ذیل حالات سے کتنی بار گذرنا پڑتا ہے؟	اکثر	کبھی کبھی	بہت کم	کبھی نہیں
1-لوگوں کے تکلیف دہ رویّے (الفاظ اور عمل) کے خوف سے آپ کو اپنی بیماری چُھپانی پڑتی ہے؟				
2-آپ کی بیماری کے بارے میں جاننے کے بعد، لوگوں کا رویّہ آپ کے ساتھ برا ہو جاتا ہے؟				
3-اپنی بیماری کے بارے میں پتہ چل جانے کے خوف سے آپ بات کا رخ بدلنے کی کوشش کرتے ہیں؟				
4- کینسر کا مریض ہونے کی وجہ سے آپ کے ساتھ برا سلوک کیا جاتا ہے؟				
5-لوگوں سے اپنی بیماری چھپانے کی غرض سے، آپ، اپنی بیماری کی علامات کو، کسی دوسری وجوہات سے منسوب کرتے ہیں (مثلاً زکام یا تھکاوٹ وغیرہ)؟				
6-آپ کی بیماری کے بارے میں جاننے کے بعد، لوگ آپ سے نظریں چُراتے ہیں/ دور رہنے لگتے ہیں؟				
7-اپنی بیماری (کینسر) کی تشخیص چھپانے کی کوشش میں آپ کو شرمندگی اور تکلیف دہ حالات سے گذرنا پڑتا ہے؟				
8- کینسر کا مریض ہونے کی وجہ سےآپ کو شادی بیاہ یا دوسری تقریبات سے دور رکھا جاتا ہے (بلایا نہیں جاتا/ تقریبات میں نظرانداز کیا جاتا ہے/ تقریبات میں آپ کا لوگوں سے گھلنا ملنا پسند نہیں کیا جاتا)؟				
9-آپ لوگوں سے اپنی بیماری کو راز رکھنے کے بارے میں کہتے ہیں؟				
10-دوسری خطرناک بیماریوں کے مریضوں کی نسبت، آپ کے ساتھ (کینسر کا مریض ہونے کی وجہ سے) برا سلوک کیا جاتا ہے؟				
11-اپنی بیماری کے بارے میں پتہ چل جانے کے خوف سے آپ لوگوں سے بات کرنے سے کتراتے/ بچتے ہیں۔				
12-آپ کی بیماری کے بارے میں معلوم ہو جانے کے بعد لوگ آپ کے ساتھ ناانصافی کا سلوک کرتے ہیں۔				

Appendix D2

Disease-related Discrimination (Urdu)

ہدایات

برائے مہربانی درج ذیل سوالات کے جواب دیجئے، یہ سوال آپ کی بیماری ایچ آئی وی/ایڈز (HIV/AIDS) کی تشخیص کے بعد پیش آنے والے واقعات/حالات سے متعلق ہیں۔ ہر بیان کے لیئے صرف ایک خانے میں نشان لگایئے۔

	4	3	2	1
آپ کو درج ذیل حالات سے کتنی بار گذرنا پڑتا ہے؟	اکثر	کبھی کبھی	بہت کم	کبھی نہیں
1-لوگوں کے تکلیف دہ رویّے (الفاظ اور عمل) کے خوف سے آپ کو اپنی بیماری چُھپانی پڑتی ہے؟				
2-آپ کی بیماری کے بارے میں جاننے کے بعد، لوگوں کا رویّہ آپ کے ساتھ برا ہو جاتا ہے؟				
3-اپنی بیماری کے بارے میں پتہ چل جانے کے خوف سے آپ بات کا رخ بدلنے کی کوشش کرتے ہیں؟				
4- ایچ آئی وی/ایڈز کا مریض ہونے کی وجہ سے آپ کے ساتھ برا سلوک کیا جاتا ہے؟				
5-لوگوں سے اپنی بیماری چھپانے کی غرض سے، آپ، اپنی بیماری کی علامات کو، کسی دوسری وجوہات سے منسوب کرتے ہیں (مثلاً زکام یا تھکاوٹ وغیرہ)؟				
6-آپ کی بیماری کے بارے میں جاننے کے بعد، لوگ آپ سے نظریں چُراتے ہیں/ دور رہنے لگتے ہیں؟				
7-اپنی بیماری (ایچ آئی وی/ایڈز) کی تشخیص چھپانے کی کوشش میں آپ کو شرمندگی اور تکلیف دہ حالات سے گذرنا پڑتا ہے؟				
8- ایچ آئی وی/ایڈز کا مریض ہونے کی وجہ سے آپ کو شادی بیاہ یا دوسری تقریبات سے دور رکھا جاتا ہے (بلایا نہیں جاتا/ تقریبات میں نظرانداز کیا جاتا ہے/ تقریبات میں آپ کا لوگوں سے گھلنا ملنا پسند نہیں کیا جاتا)؟				
9-آپ لوگوں سے اپنی بیماری کو راز رکھنے کے بارے میں کہتے ہیں؟				
10-دوسری خطرناک بیماریوں کے مریضوں کی نسبت، آپ کے ساتھ (ایچ آئی وی/ایڈز کا مریض ہونے کی وجہ سے) برا سلوک کیا جاتا ہے؟				
11-اپنی بیماری کے بارے میں پتہ چل جانے کے خوف سے آپ لوگوں سے بات کرنے سے کتراتے/ بچتے ہیں۔				
12-آپ کی بیماری کے بارے میں معلوم ہو جانے کے بعد لوگ آپ کے ساتھ ناانصافی کا سلوک کرتے ہیں۔				

Appendix G

Brief Religious coping scale (English)

Instructions: The following items deal with ways you coped with the negative event in your life. There are many ways to try to deal with problems; these items ask what you did to cope with this negative event. Obviously different people deal with things in different ways, but we are interested in how you tried to deal with it. Each item says something about a particular way of coping. We want to know to what extent you did what the item says. How much or how frequently. Don't answer on the basis of what worked or not, just whether or not you did 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. Circle the answer that best applies to you.

		Not at all 1	Somewhat 2	Quite a bit 3	A great deal 4
1	Looked for a stronger connection with God				
2	Sought God's love and care				
3	Sought help from God in letting go of my anger				
4	Tried to put my plans into action together with God				
5	Tried to see how God might be trying to strengthen me in this situation				
6	Asked forgiveness for my sins				
7	Focused on religion to stop worrying about my problems				

Appendix H

Positive Relegious Coping Scale (Urdu)

ہدا یات

زندگی میں پیش آنے والے منفی واقعات (مثلاً کسی حادثہ /موت / یا کسی خطرناک بیماری کی تشخیص) کے واقعے کے ساتھ نبٹنے کے دوران لوگ انفرادی نوعیت کے ردعمل کا اظہار کرتے ہیں اور اسی انفرادیت کی بدولت ہر شخص کا ردعمل دوسرے سے مختلف ہوتا ہے۔ درجذیل بیانات منفی واقعات کے بعد کیئے جانے والے ممکنہ ردعمل سے متعلق ہیں۔ آپ سے یہ سوالات بیماری کی تشخیص کے بعد کیئے گئے آپکے مخصوص ردعمل کی نوعیت جاننے کی غرض سے کیئے جارہے ہیں۔ اس سوالنامے کے ہر بیان میں ردعمل کا ایک مخصوص انداز دیا گیا ہے، اوراس کے سامنے چار ممکنہ جوابات بھی دیئے گئے ہیں۔ آپ ہر سوال کا جواب دیتے ہوئے صرف اسی جواب کے گرد دائرہ لگائیے، جو واقعی آپکے اوپر مکمل طور پر لاگو ہوتا ہے۔ یاد رکھیئے، اس ریسرچ کا تعلق محض آپکے ردعمل کی نوعیت جاننے سے ہے، آپکے ردعمل کے بعد ہونے والے منفی یا مثبت نتائج سے بالکل نہیں، ذیل میں کچھ بیانات دیئے جارہے ہیں، جواب دیتے ہوئے ہر بیان کو دوسرے بیانات سے علیحدہ کر کے انفرادی طور پر دیکھیے۔ ہر بیان کے لیئے صرف ایک خانے میں نشان لگائیے۔ شکریہ۔

1	2	3	4
بالکل نہیں	بہت کم	کسی حد تک	بہت حد تک

1 میں نے خدا کے ساتھ اپنے تعلق کو مضبوط بنانے کی کوشش کی۔
2 میں نے خدا کی محبت اور توجہ پانے کی کوشش کی۔
3 اپنے غصے پر قابو پانے کے لیئے میں نے خدا سے مدد مانگی۔
4 خدا کی مدد کے ساتھ، میں نے اپنے فیصلوں پر عمل کرنے کی کوشش کی۔
5 میں نے یہ جاننے کی کوشش کی، کہ ان حالات میں، میرا خدا، مجھے کسطرح مضبوط بنا رہا ہے۔
6 میں نے اپنے گناہوں کی معافی مانگی۔
7 میں نے پریشان کُن سوچوں سے بچنے کے لئے، اپنی توجہ مذہب کی طرف کر لی۔

Appendix I

Engagement Coping (English)

Instructions: Please indicate how much you did each of the following in the past few weeks when dealing with your disease

		Strongly disagree 1	Disagree 2	Agree 3	Strongly agree 4
1	I looked forward for something good in what was happening				
2	I asked people who have had similar experiences for advice.				
3	I did what had to be done, one step at a time				
4	I tried to get emotional support from friends and relatives				
5	I tried to live with the situation				
6	I made a plan of action				
7	I tried to come up with a strategy about what to do				
8	I tried to see it in a different light, to make it seem more positive.				

Appendix J

Engagement Coping Scale (Urdu)

ہدا یات

پچھلے ہفتوں کے دوران، آپ نے اپنی بیماری کے سلسلے میں، آپ نے مندرجہ ذیل اقدامات کس حد تک کیئے؟ ہر بیان کے لیئے صرف ایک خانے میں نشان لگا یئے۔

4	3	2	1
مکمل طور پر متفق	متفق	غیر متفق	مکمل طور پر غیر متفق

1 میں نے اپنے حالات میں چُھپی ہوئی کسی بہتری کو تلاش کرنے کی کوشش کی۔

2 میں نے اُن لوگوں سے مشورہ مانگا، جو میرے ہی جیسے حالات سے گذر چکے تھے۔

3 میں نے ایک وقت میں ایک ہی قدم اُٹھانے کی حکمت عملی کو اپنایا۔

4 میں نے اپنے گھر والوں/دوستوں/رشتہ داروں سے جذباتی سہارا حاصل کرنے کی کوشش کی۔

5 میں نے خود کو حالات کے مطابق ڈھالنے کی کوشش کی۔

6 میں نے مستقبل میں کیئے جانے والے اقدامات کو ترتیب دیا۔

7 میں نے یہ طے کرنے کی کوشش کی، کہ اس صورتحال سے نبٹنے کے لیئے مجھے کیا کچھ کرنا چاہیئے۔

8 میں نے اپنے حالات کو ایسے انداز سے دیکھنے کی کوشش کی، جس سے اُن کا مثبت پہلو نمایاں ہوتا ہو۔

Appendix K

Interpersonal Support Evaluation List (ISEL) -- General Population (English)

Instructions: This scale is made up of a list of statements each of which may or may not be true about you. For each statement check "definitely true" if you are sure it is true about you and "probably true" if you think it is true but are not absolutely certain. Similarly, you should check "definitely false" if you are sure the statement is false and "probably false" is you think it is false but are not absolutely certain.

1. There are several people that I trust to help solve my problems.
   ____definitely true (3) ____definitely false (0)
   ____probably true (2) ____probably false (1)

2. If I needed help fixing an appliance or repairing my car, there is someone who would help me.
   ____definitely true (3) ____definitely false (0)
   ____probably true (2) ____probably false (1)

3. Most of my friends are more interesting than I am.
   ____definitely true (3) ____definitely false (0)
   ____probably true (2) ____probably false (1)

4. There is someone who takes pride in my accomplishments.
   ____definitely true (3) ____definitely false (0)
   ____probably true (2) ____probably false (1)

5. When I feel lonely, there are several people I can talk to.
   ____definitely true (3) ____definitely false (0)
   ____probably true (2) ____probably false (1)

6. There is no one that I feel comfortable to talking about intimate personal problems.
   ____definitely true (3) ____definitely false (0)
   ____probably true (2) ____probably false (1)

7. I often meet or talk with family or friends.
   ____definitely true (3) ____definitely false (0)
   ____probably true (2) ____probably false (1)

8. Most people I know think highly of me.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

9. If I needed a ride to the airport very early in the morning, I would have a hard time finding someone to take me.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

10. I feel like I'm not always included by my circle of friends.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

11. There really is no one who can give me an objective view of how I'm handling my problems.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

12. There are several different people I enjoy spending time with.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

13. I think that my friends feel that I'm not very good at helping them solve their problems.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

14. If I were sick and needed someone (friend, family member, or acquaintance) to take me to the doctor, I would have trouble finding someone.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

15. If I wanted to go on a trip for a day (e.g., to the mountains, beach, or country), I would have a hard time finding someone to go with me.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

16. If I needed a place to stay for a week because of an emergency (for example, water or electricity out in my apartment or house), I could easily find someone who would put me up.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

17. I feel that there is no one I can share my most private worries and fears with.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

18. If I were sick, I could easily find someone to help me with my daily chores.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

19. There is someone I can turn to for advice about handling problems with my family.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

20. I am as good at doing things as most other people are.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

21. If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

22. When I need suggestions on how to deal with a personal problem, I know someone I can turn to.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

23. If I needed an emergency loan of $100, there is someone (friend, relative, or acquaintance) I could get it from.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

24. In general, people do not have much confidence in me.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

25. Most people I know do not enjoy the same things that I do.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

26. There is someone I could turn to for advice about making career plans or changing my job.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

27. I don’t often get invited to do things with others.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

28. Most of my friends are more successful at making changes in their lives than I am.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

29. If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, etc.).
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

30. There really is no one I can trust to give me good financial advice.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

31. If I wanted to have lunch with someone, I could easily find someone to join me.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

32. I am more satisfied with my life than most people are with theirs.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

33. If I was stranded 10 miles from home, there is someone I could call who would come and get me.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

34. No one I know would throw a birthday party for me.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

35. It would be difficult to find someone who would lend me their car for a few hours.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

36. If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

37. I am closer to my friends than most other people are to theirs.
____definitely true (3) ____definitely false (0)
____probably true (2) ____probably false (1)

38. There is at least one person I know whose advice I really trust.
 ____definitely true (3) ____definitely false (0)
 ____probably true (2) ____probably false (1)

39. If I needed some help in moving to a new house or apartment, I would have a hard time finding someone to help me.
 ____definitely true (3) ____definitely false (0)
 ____probably true (2) ____probably false (1)

40. I have a hard time keeping pace with my friends.
 ____definitely true (3) ____definitely false (0)
 ____probably true (2) ____probably false (1)

Appendix L

Interpersonal Social Evaluation List (Urdu)

ہدا یات

ذیل میں کچھ بیانات دیئے جارہے ہیں، ہر بیان کے سامنے چار جوابات (بالکل درست، تقریبا درست، تقریبا غلط، بالکل غلط) دیئے گئے ہیں۔ بالکل درست کا نشان صرف اُس بیان پر لگایئے۔ جسکے درست ہونے کے بارے میں آپ کو مکمل یقین ہو، مکمل یقین نہ ہونے کی صورت میں تقریبا درست پر نشان لگایئے، اسی طرح بالکل غلط کے خانے میں صرف اُسی صورت میں نشان لگایئے۔ جب آپ کو مکمل یقین ہو، ورنہ تقریبا غلط پر نشان لگایئے۔

3	2	1	0
بالکل درست	تقریبا درست	تقریبا غلط	بالکل غلط

1 اپنے مسائل حل کرنے کیلیئے، میں کئی لوگوں سے مدد لے سکتا ہوں۔

2 روزمرہ استعمال کی چیزوں یا اپنی سواری (گاڑی/موٹرسائیکل/سائیکل) کی مرمت کے دوران، ضرورت پڑنے پر، ایک شخص میری مدد کرسکتا ہے۔

3 میرے کئی دوستوں کی شخصیت مجھ سے زیادہ متاثر کن ہے۔

4 ایک شخص ایسا بھی ہے، جو میری کامیابیوں پر فخر محسوس کرتا ہے۔

5 تنہائی محسوس ہونے کی صورت میں، میں کئی لوگوں سے بات چیت کرسکتا ہوں/ملنے جاسکتا ہوں۔

6 ایسا کوئی بھی نہیں، جسکے ساتھ میں بلاجھجھک اپنے جذباتی نوعیت کے مسائل کا ذکر کرسکوں۔

7 میں اکثر، اپنے گھروالوں/رشتہ داروں/دوستوں سے ملتا جُلتا ہوں۔

8 میرے کئی جاننے والے مجھے بہت اچھا سمجھتے ہیں۔

9 مجھے کوئی ایسا شخص مشکل سے ہی ملے گا، جو ضرورت پڑنے پر، صبح سویرے، مجھے ایئرپورٹ/ریلوے سٹیشن/بس کے اڈے تک چھوڑنے جائے۔

10 مجھے ایسا لگتا ہے، کہ میرے دوست احباب، مجھے اکثر موقعوں پر اپنے ساتھ شامل نہیں کرتے۔

11 کوئی ایک شخص بھی ایسا نہیں، جو مجھے میرے مسائل حل کرنے کے طریقۂ کار کے بارے میں بالکل صحیح رائے دے۔

12 ایسے بہت سے لوگ ہیں، جنکے ساتھ بات چیت کرنا/ملنا جُلنا مُجھے بہت اچھا لگتا ہے۔

13 میرے خیال میں، میرے دوست، اپنے مسائل حل کرنے کے معاملے میں، مجھے، کچھ زیادہ کارآمد نہیں سمجھتے۔

14 بیمار پڑجانے/طبیعت زیادہ خراب ہوجانے کی صورت میں مجھے ہسپتال لے جانے کے لیئے، کوئی شخص (میرے گھروالے/رشتہ دار/دوست/پڑوسی/واقف کار) مشکل سے ہی راضی ہوگا۔

15 مجھے کوئی ایسا شخص مشکل سے ہی ملے گا، جو کسی دن، سیروتفریح کے مقام پر (پہاڑی مقام/مضافاتی مقام/سمندر وضیرہ) میرے ساتھ جانے کو تیار ہو۔

16 گھر پر پیش آنے والے مشکل حالات (مثلا پانی، بجلی وغیرہ کے مسائل کی وجہ سے) یا بیماری سے متعلقہ مسائل (مثلا علاج کی سہولت کیلیئے یا بیماری کی تکلیف کی وجہ سے) کسی کے گھر ہفتہ بھر ٹھہرنے کی ضرورت پڑی، تو کوئی شخص باسانی مجھے اپنے گھر رکھنے پر تیار ہوجائیگا۔

17 مجھے ایسا کوئی شخص بھی دکھائی نہیں دیتا، جس کے ساتھ میں اپنے انتہائی ذاتی مسائل اور پریشانیوں کا ذکر کر سکوں۔

18 بیمار پڑ جانے/طبیعت زیادہ خراب ہو جانے کی کی صورت میں، روزمرہ کے کام کاج کے لیئے، میں کسی کو آسانی سے کہہ سکتا ہوں۔

19 اپنے گھریلو مسائل کے بارے میں، میں ایک شخص سے مشورہ لے سکتا ہوں۔

20 دوسرے لوگوں کی طرح، میں بھی اپنے کام بہت اچھی طرح سے کر سکتا ہوں-

21 مجھے کوئی ایسا شخص آسانی سے مل جائیگا، جو کسی دن چہل قدمی کرنے/کسی کے گھر جانے/گھومنے پھرنے/فلم دیکھنے /کہیں کھانا کھانے/مجھے گھر سے باہر لے جانے میں میرا ساتھ دے۔

22 میں اپنے ذاتی مسائل کے بارے میں ایک شخص سے مشورہ لے سکتا ہوں۔

23 ایک بڑی رقم کی اچانک ضرورت پڑ جانے پر، میں اپنے گھر والوں/دوستوں/رشتہ داروں/جاننے والوں سے قرض مانگ سکتا ہوں۔

24 عام طور پر لوگ مجھ پہ کچھ زیادہ بھروسہ نہیں کرتے۔

25 بہت سے لوگ اُن چیزوں/کاموں سے لطف اندوز نہیں ہوتے، جن سے میں ہوتا ہوں۔

26 ایک ایسا شخص بھی ہے، جسکے ساتھ، میں اپنے کچھ خاص معاملات (مثلاً نوکری/ذاتی زندگی/گھریلو مسائل/علاج معالجہ وغیرہ) کو بہتر بنانے کے بارے میں مشورہ کر سکتا ہوں۔

27 مل جل کر کام کرنے کے موقع پر، اکثر اوقات، لوگ مجھے اپنے ساتھ شامل نہیں کرتے۔

28 میری نسبت، میرے دوست، اپنی زندگی کو بہتر بنانے میں زیادہ کامیاب رہے ہیں۔

29 کوئی ایسا شخص مجھے بہت مشکل سے ملے گا، جو، میری غیر موجودگی (گھر/قصبہ/شہر سے) کے دوران، کچھ عرصے کے لیئے، میرے گھر کی دیکھ بھال کی ذمہ داری اُٹھا سکے۔

30 ایسا کوئی شخص بھی نہیں، جس سے میں اپنے معاشی معاملات کے بارے میں کوئی اچھا مشورہ لے سکوں۔

31 کسی کے ساتھ مل بیٹھ کر کھانا کھانے کی خواہش کو میں باسانی پورا کر سکتا ہوں۔

32 دوسرے کئی لوگوں کے مقابلے میں، میں اپنی زندگی سے بہت مطمئن ہوں۔

33 گھر سے دس بارہ کلومیٹر دور کسی مشکل میں پھنس جانے کی صورت میں، میرے بُلانے پر، کوئی شخص میری مدد کو آ سکتا ہے۔

34 ایسا کوئی بھی نہیں، جو خاص میری خوشی کے لیئے کسی دعوت/میری سالگرہ کا اہتمام کرے۔

35 مجھے کوئی ایسا شخص مشکل سے ہی ملے گا، جو مجھے اپنی سواری (کار/موٹر سائیکل/سائیکل) یا کوئی قیمتی چیز چند گھنٹوں کے لیئے دے دے۔

36 شدید نوعیت کا گھریلو مسئلہ پیش آنے کی صورت میں، صحیح مشورہ کے لیئے، کسی شخص کو ڈھونڈنا، میرے لیئے بہت مشکل ہوگا۔

37 عام طور پر لوگ اپنے گھر والوں/دوستوں کے اتنے قریب نہیں ہوتے، جتنا کہ میں ہوں۔

38 میری زندگی میں، کم از کم ایک شخص ایسا ضرور ہے، جسکے مشورے کو میں دل سے مانتا ہوں۔

39 رہائش کی تبدیلی کے دوران، اپنی مدد کے لیئے کسی شخص کو ڈھونڈنا میرے لیئے بہت مشکل ہوگا۔

40 اپنے دوستوں کے ساتھ مطابقت رکھنے میں مجھے مشکل کا سامنا کرنا پڑتا ہے۔

Appendix M

Beck Depression Inventory (English)

Instructions: In this section are groups of statements. Please read each group of statements carefully. Then pick out the statement in each group which best describes the way you have been feeling the past week, including today. Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, CIRCLE EACH ONE. Be sure to read all the statements in each group before making your choice.

1.

0 I do not feel sad
1 I feel sad
2 I am sad all the time and I can't snap out of it
3 I am so sad or unhappy that I can't stand it

2.

0 I am not particularly discouraged about the future.
1 I feel discouraged about the future.
2 I feel I have nothing to look forward to.
3 I feel that the future is hopeless and that things cannot improve

3.

0 I do not feel like a failure
1 I feel I have failed more than the average person
2 As I look back on my life, all I can see is lot of failures.
3 I feel I am a complete failure as a person.

4

0 I get as much satisfaction out of things as I used to.
1 I don't enjoy things the way I used to.
2 I don't get real satisfaction out of anything anymore
3 I am dissatisfied or bored with everything

5.

0 I don’t feel particularly guilty

1 I feel guilty a good part of the time

2 I feel qite guilty most of the time

3 I feel guilty all of the time

6.

0 I don’t feel I am being punished

1 I feel I may be punished

2 I expect to be punished

3 I feel I am being punished

7.

0 I don’t feel disappointed in myself

1 I am disappointed in myself

2 I am disguised with myself

3 I hate myself

8.

0. I don’t feel I am any worse than anybody else

1. I am critical of myself for my weakness or mistakes

2. I blame myself all the time for my faults

3. I blame myself for everything bad that happens

9.

0. I don’t have any thoughts of killing myself

1. I have thoughts of killing myself, but I would not carry them out

2. I would like to kill myself.

3. I would kill myself if I had the chance

10

0. I don’t cry any more than usual

1. I cry more now than I used to

2. I cry all the time now

3 . I used to be able to cry, but now I can’t cry even though I want to.

11.

0. I am no more irritated now than I ever am
1. I get annoyed or irritated more easily than I used to
2. I feel irritated all the time now
3 . I don't get irritated at all by the things that used to irritate me

12

0. I have not lost interest in other people
1. I am less interested in other people than I used to be
2. I have lost most of my interest in other people
3 . I have lost all of my interest in other people

13

0. I make decisions about as well as I ever could
1. I put off making decisions more than I used to
2. I have greater difficulty in making decisions than before
3 . I can't make decisions at all anymore

14

0. I don't feel I look any worse than I used to
1. I am worried that I am looking old or unattractive
2. I feel that there are permanent changes in my appearance that make me look unattractive
3 . I believe that I look ugly

15.

0. I can work about as well as before
1. It takes an extra effort to get started t doing something
2. I have to push myself very hard to do anything
3 . I can't do any work at all

16

0. I can sleep as well as usual
1. I don't sleep as well as I used to
2. I wake up 1-2 hours earlier than usual and and find it hard to get back to sleep
3 . I wake up several hours earlier than I used to and can not get back to sleep

17

0. I don’t get more tired than usual
1. I get tired more easily than I used to
2. I get tired from doing almost anything
3. I am too tired to o anything

18

0. My appetite is no worse than usual
1. My appetite is not as good as it used to be
2. My appetite is much worse now
3. I have no appetite at all anymore

19

0. I haven’t lost much weight, if any, lately
1. I have lost more than 5 pounds
2. I have lost more than 10 pounds
3. I have lost more than 15 pounds

I am purposefully trying to lose weight by eating less…….yes…….No

20

0. I am no more worried about my health than usual
1. I am worried about physical problems such as aches and pains, upset stomach or constipation
2. I am worried about physical problems and it’s hard to think of much else.
3. I am so worried about my physical problems that I can not think about anything else.

21

0. I have not noticed any recent change in my interest in sex
1. I am less interested in sex than I used to be
2. I am much less interested in sex now
3. I have lost interest in sex completely

Appendix N

Beck Depression Inventory (Urdu)

ہدایات

اس سوالنامے کا ہر بیان، آپکی بیماری سے متعلقہ مشکلات (مثلاً بیماری اور علاج سے متعلقہ مسائل اور لوگوں کے رویوں کی تبدیلی وغیرہ) کے نتیجے میں پیدا ہونے والی سوچوں، احساسات اور قدرتی خواہشات پر پڑنے والے منفی اثرات سے متعلق ہے۔ آپکے بے جھجک اور ایمانداری سے دیئے گئے جوابات سے ہی آپ کی تکلیف کی درست نوعیت کا علم ہو سکے گا، جو آپ اور آپ جیسے دوسرے مریضوں کی تکلیف کا حل تلاش کرنے میں مددگار ثابت ہوگا۔ آپ کو یقین دلایا جاتا ہے کہ آپ سے لی گئی معلومات صیغۂ راز میں رکھی جائیں گی اور صرف تحقیقی مقاصد کے لیے استعمال کی جائیں گی۔ یہ سوالنامہ 1 سے 21 تک مختلف حصوں میں تقسیم ہے۔ ہر حصہ چار بیانات پر مشتمل ہے برائے مہربانی وہ بیان چُنیے، جو آپ پر موجود ہفتے میں بشمول آج کے دن کے لاگو ہوتا ہے۔ جو بیان آپ پر لاگو ہوتا ہو اس کے ہندسے کے گرد دائرے کا نشان لگائیے۔ اگر کسی ایک حصے میں ایک سے زیادہ بیانات آپ پر لاگو ہوتے ہوں تو آپ ایک سے زیادہ ہندسوں کے گرد دائرے لگا سکتے ہیں۔ کسی بیان کے گرد دائرہ لگانے سے پہلے آپ اس حصے کے تمام بیانات پڑھ لیجیے۔ آپ کے تعاون کا شکریہ۔

1

0 میں اداس نہیں ہوں۔

1 میں اداس ہوں۔

2 میں ہر وقت اداس رہتا ہوں اور اس حالت پر قابو نہیں پا سکتا۔

3 میں اتنا اداس یا ناخوش ہوں کہ یہ میرے لئے ناقابل برداشت ہے۔

2

0 میں مستقبل کے بارے میں بددل نہیں ہوں۔

1 میں مستقبل کے بارے میں بددل ہوں۔

2 مجھے ایسا لگتا ہے کہ اب میرے لئے کچھ نہیں رہا۔

3 مجھے ایسا لگتا ہے کہ میرا کوئی مستقبل نہیں ہے۔

3

0 مجھے احساس ناکامی نہیں ہے۔

1 مجھے ایسا لگتا ہے میں ایک اوسط فرد کے مقابلے میں زیادہ ناکام رہا ہوں۔

2 جب میں اپنی گزشتہ زندگی پر نظر ڈالتا ہوں تو مجھے سوائے ناکامی کے اور کچھ نظر نہیں آتا۔

3 مجھے ایسا لگتا ہے کہ میں مکمل طور پر ایک ناکام انسان ہوں۔

4

0 میں اتنا ہی مطمئن ہوں جتنا کہ پہلے تھا۔

1 مجھے پہلے کی طرح چیزوں کا لطف نہیں آتا۔

2 مجھے اب کسی بھی چیز سے بھرپور لطف نہیں آتا۔

3 میں ہر چیز سے اکتایا ہوا ہوں۔

5

0 مجھے کوئی احساس جرم نہیں ستاتا۔

1 مجھے اکثر احساس جرم ستاتا رہتا ہے۔

2 مجھے زیادہ تر وقت احساس جرم ستاتا رہتا ہے۔

3 میں ہر وقت احساس جرم میں مبتلا رہتا ہوں۔

6

0 میں یہ محسوس نہیں کرتا کہ مجھے سزا مل رہی ہے۔

1 مجھے ایسا لگتا ہے کہ جیسے مجھے کوئی سزا ملنے والی ہے۔

2 میں اپنے لئے سزا کی توقع رکھتا ہوں۔

3 مجھے ایسا محسوس ہوتا ہے کہ مجھے سزا مل رہی ہے۔

7

0 میں اپنی ذات سے مایوس نہیں ہوں۔

1 مجھے اپنی ذات سے مایوسی ہے۔

2 میں اپنی ذات سے بددل ہوں۔

3 میں اپنی ذات سے نفرت کرتا ہوں۔

8

0 مجھے ایسا نہیں لگتا کہ میں کسی بھی دوسرے انسان سے زیادہ گیا گزرا ہوں۔

1 میں اپنی کمزوریوں یا غلطیوں کی وجہ سے اپنی ذات پر تنقید کرتا ہوں۔

2 میں اپنی غلطیوں کی وجہ سے اپنی ذات کو قابل الزام ٹھہراتا ہوں۔

3 میں ہر خراب کام کا ذمہ دار اپنی ذات کو ٹھہراتا ہوں۔

9

0 مجھے اپنے آپ کو ختم کرنے کے بارے میں کوئی خیال نہیں آتا۔

1 مجھے اپنے آپ کو ختم کرنے کا خیال رہتا ہے مگر میں ایسا نہیں کرونگا۔

2 میں اپنے آپ کو ختم کرنا نہیں چاہونگا۔

3 اگر مجھے موقع ملے تو میں اپنے آپ کو ختم کرلوں۔

10

0 میں معمول سے زیادہ نہیں روتا۔

1 میں پہلے کی نسبت زیادہ روتا ہوں۔

2 میں اب ہر وقت روتا رہتا ہوں۔

3 میں پہلے رو لیا کرتا تھا لیکن اب چاہنے کے باوجود نہیں روسکتا۔

11

0 میں پہلے کے مقابلے میں زیادہ چڑچڑا ہوں۔

1 میں پہلے کی نسبت جلد چڑ جاتا ہوں۔

2 میں ہر وقت چڑچڑا سا رہتا ہوں۔

3 میں ان چیزوں سے بالکل نہیں چڑتا جن سے پہلے چڑ جاتا تھا۔

12

0 میری دلچسپی دوسرے لوگوں میں ختم نہیں ہوئی۔

1 میں اب پہلے کی نسبت دوسرے لوگوں میں کم دلچسپی لیتا ہوں۔

2 میری دلچسپی دوسرے لوگوں کے بارے میں کافی حد تک ختم ہوگئی ہے۔

3 میں دوسرے لوگوں میں اپنی تمام تر دلچسپی کھو چکا ہوں۔

13

0 میری قوت فیصلہ پہلے ہی کی طرح ہے۔

1 میں پہلے سے زیادہ فیصلے ملتوی کرنے کی کوشش کرتا ہوں۔

3 میں اب مزید کسی قسم کا کوئی فیصلہ نہیں کرسکتا۔

14

0 مجھے ایسا نہیں لگتا کہ میں پہلے کے مقابلے میں بُرا نظر آتا ہوں۔

1 میں پریشان ہوں کہ میں عمر رسیدہ یا بےکشش نظر آتا ہوں۔

2 مجھے ایسا لگتا ہے کی میری شکل میں مستقل تبدیلیاں آرہی ہیں جن کے وجہ سے میں بھدا لگتا ہوں۔

3 مجھے ایسا لگتا ہے کہ میں بدصورت لگتا ہوں۔

15

0 میں پہلے کی طرح کام کرسکتا ہوں۔

1 مجھے کسی کام کو شروع کرنے میں غیر معمولی کوشش کرنی پڑتی ہے۔

2 مجھے کسی کام کو کرنے کے لئے اپنے آپ پر بہت زور ڈالنا پڑتا ہے۔

3 میں کوئی بھی کام نہیں کرسکتا۔

16 0 میں پہلے کی طرح اچھی نیند سوسکتا ہوں۔

1 میری نیند پہلے کی طرح اچھی نہیں رہی۔

2 میں برخلافِ عادت ایک دو گھنٹے پہلے جاگ جاتا ہوں اور پھر دوبارہ سونے میں مجھے کافی دشواری ہوتی ہے۔

3 میں کئی گھنٹے پہلے جاگ جاتا ہوں اور پھر دوبارہ سونہیں پاتا۔

17

0 میں پہلے کی نسبت زیادہ تھکاوٹ محسوس نہیں کرتا۔

1 میں پہلے کے مقابلے میں جلد تھک جاتا ہوں۔

2 میں کوئی بھی کام کرنے سے جلد تھک جاتا ہوں۔

3 مجھے اتنی تھکاوٹ ہوجاتی ہے کہ میں کوئی بھی کام نہیں کرسکتا۔

18

0 میری بھوک اپنے معمول کے مطابق ہے۔

1 میری بھوک پہلے کے مقابلے میں اچھی نہیں ہے۔

2 میری بھوک اب بہت خراب ہوگئی ہے۔

3 میری بھوک اب بالکل ختم ہوگئی ہے۔

19

0 پچھلے دنوں میں میرے وزن میں کوئی کمی نہیں ہوئی ہے۔

1 میرے وزن میں پانچ پونڈ سے زیادہ کمی ہوئی ہے۔

2 میرے وزن میں دس پونڈ سے زیادہ کمی ہوئی ہے۔

3 میرے وزن میں پندرہ پونڈ سے زیادہ کمی ہوئی ہے۔

میں کم خوراکی (ڈائٹنگ) سے آجکل اپنا وزن کم کرنے کی کوشش کررہا ہوں۔ ہاں __________ نہیں ______________

20

0 میں اپنی صحت کے بارے میں پہلے سے زیادہ فکرمند نہیں ہوں۔

1 میں جسمانی تکالیف مثلاً درد، خرابیِ ہاضمہ یا قبض کے متعلق کافی فکرمند ہوں۔

2 مجھے اپنی صحت کے بارے میں اتنی فکر ہے کہ میرا کسی اور چیز کے بارے میں سوچنا مشکل ہے۔

3 میں اپنی پریشانی میں ہروقت غرق رہتا ہوں۔

21

0 میرے جنسی جذبات (خواہشات) میں کوئی حالیہ تبدیلی نہیں آئی۔
1 میرے جنسی جذبات (خواہشات) پہلے کے مقابلے میں کم ہو گئے ہیں۔
2 میرے جنسی جذبات (خواہشات) اب کافی کم ہو گئے ہیں۔
3 میرے جنسی جذبات (خواہشات) مکمل طور پر ختم ہو گئے ہیں۔

Appendix-O

ذاتی کوائف

نام (اصلی/فرضی)

تعلیم: بالکل نہیں / میٹرک سے کم / میٹرک / انٹرمیڈیٹ / گریجویٹ / پوسٹ گریجویٹ

جنس:

عمر:

ازدواجی حیثیت: غیر شادی شدہ / شادی شدہ / طلاق یافتہ / علیحدگی / بیوہ (رنڈوا)

فیملی سسٹم: نیوکلیئر فیملی / جوائنٹ فیملی / اکیلے رہائش / ہاسپٹل میں رہائش / رہائش کا کوئی اور بندوبست

ماہانہ آمدنی:

رہائش:

Appendix P

Permission Letter

To Whom it May Concern

Subject: Research Data Collection on Cancer patients

Please refer to the subject cited above.
Shakira Huma Siddiqui is my Ph. D., Psychology research student. She is conducting research on “Moderating role of positive religious coping, engagement coping, and perceived availability of social support among chronically-ill patients” under my supervision. For the purpose of her study, she needs to collect information on a sample of Cancer patients.

I will be obliged if she be given opportunity in your hospital/organization to administer psychological tests on the patients (including both men & women).

I ensure that this information will purely be used for her Ph. D., research purpose and remain confidential.

Looking forward for your support in this endeavor.

With warm regards
Sincerely yours
(Dr. M. Anis-ul-Haque)
Associate Professor
National Institute of Psychology
Quaid-i-Azam University,Islamabad.
Email: haqanis@yahoo.com

Appendix Q

Permission Letter

To Whom it May Concern

Subject: Research Data Collection on HIV/AIDS patients

Please refer to the subject cited above.
Shakira Huma Siddiqui is my Ph. D., Psychology research student. She is conducting research on “Moderating role of positive religious coping, engagement coping, and perceived availability of social support among chronically-ill patients” under my supervision. For the purpose of her study, she needs to collect information on a sample of HIV/AIDS patients.

I will be obliged if she be given opportunity in your hospital/organization to administer psychological tests on the patients (including both men & women).

I ensure that this information will purely be used for her Ph. D., research purpose and remain confidential.

Looking forward for your support in this endeavor.

With warm regards

Sincerely yours
(Dr. M. Anis-ul-Haque)
Associate Professor
National Institute of Psychology
Quaid-i-Azam University, Islamabad.
Email: haqanis@yahoo.com