A STUDY OF DEPRESSION IN RELATION TO LONELINESS, OPTIMISM AND LIFE SATISFACTION

ABSTRACT
OF THE
THESIS
SUBMITTED FOR THE AWARD OF THE DEGREE OF

Doctor of Philosophy
In
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By
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Under the supervision of
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ABSTRACT

The present study entitled "A Study of Depression in Relation to Loneliness, Optimism and Life Satisfaction" aims to investigate the relationship of depression with the variables like loneliness, optimism and life satisfaction. Depression was considered as a dependent variable while loneliness, optimism and life satisfaction as independent variables. Out of all independent variables, optimism had its two dimensions namely optimism and pessimism. Old age people were found best suitable as a sample to test the hypothesis for the study.

Four hundred old age people aged from 60 to 85 were selected randomly from different living areas of Delhi and Agra city. Further participants were divided into different groups on the basis of demographic variables. There were 167 males and 233 females; 195 participants were living in rural areas while 205 participants were living in urban areas; 226 participants were having their spouses alive while 174 participants were living their life without spouses (spouse not alive). Sample consisted of 209 participants who were dependent financially on their family members and 191 were such who were independent and earning by their own or getting regular income from government or non-governmental sources. There were 260 participants who were living with their families and 140 were living without their families. Out of all the participants 107 were illiterate who were not educated at all (they did not receive any formal education), 165 participants were less educated (they were the people who were literate but not at a higher level. Participants who were educated up to 12th, were kept in this category) while 128 participants were highly educated (participants who were educated above 12th and who had gotten education from reputed organization or university were categorized in this group).

Beck Depression Inventory II (Beck et al., 1996), UCLA Loneliness Scale (Russell, 1996), Optimism-Pessimism scale (Dember et al., 1989) and Satisfaction with Life Scale (Diener et al., 1985) were used to measure depression, loneliness, optimism and life satisfaction respectively.

Stepwise Multiple Regression was applied to find which independent variable was found as significant predictor of depression while t-test and ANOVA analyses
were used to see whether the groups differ on depression, loneliness, optimism-pessimism and life satisfaction or not. The main findings of the study are as follows:

- Loneliness, pessimism and life satisfaction were significantly related to depression among old age participants. Loneliness and pessimism were positively related to depression while life satisfaction was negatively related to depression among old age participants.

- Life satisfaction and loneliness were significant predictors of depression among male old age participants whereas loneliness, pessimism and life satisfaction were significant predictors of depression among female old age participants.

- Loneliness and life satisfaction were significantly related to depression among old age respondents living in rural areas while pessimism and life satisfaction were significantly related to depression among old age respondents living in urban areas.

- Loneliness, optimism-pessimism and life satisfaction were significant predictors of depression among old age people with spouse alive while pessimism and life satisfaction were significant predictors of depression among old age people with spouse not alive.

- Loneliness, optimism, pessimism and life satisfaction were significant predictors of depression among old age participants who were financially dependent on their family; on the other hand only optimism and pessimism were significant predictors of depression among financially independent old age participants.

- All four predictors loneliness, optimism, pessimism and life satisfaction were significant as predictors of depression among old age participants who were living with their family while pessimism and life satisfaction were significant as predictors of depression among old age participants who were living without their family.
• The relationship of loneliness, pessimism and life satisfaction with depression was significant among illiterate and less educated old age people whereas among highly educated old age people optimism-pessimism and life satisfaction were significant predictors of depression.

• There was an insignificant difference between male and female old age respondents on the variable depression and optimism. A significant difference was found between the two groups with regard to loneliness, pessimism and life satisfaction. Female old age people were lonelier, more pessimistic and more satisfied with their life.

• Old age participants living in rural areas and old age participants living in urban areas were differed significantly on the variables depression, loneliness, optimism-pessimism and life satisfaction. People living in urban areas were more depressed, lonelier, pessimistic and more satisfied with their life. While people living in rural areas were more optimistic than the people living in urban areas.

• A significant difference was found between old age people with spouse alive and old age people with spouse not alive with regard to depression, loneliness, optimism and pessimism. Old age respondents with spouse not alive were higher on depression, loneliness and pessimism while lower on the variable optimism. No significant difference was found between the two groups with regard to life satisfaction.

• There was a significant difference between old age participants financially dependent on their family and financially independent old age participants with regard to depression, loneliness, optimism-pessimism and life satisfaction. Financially dependent old age people were more depressed, lonelier and more pessimistic while old age people who were financially independent were more optimistic and more satisfied with their life.

• Old age people living with their family were significantly differed from old age people living without their family with regard to depression, loneliness, optimism-pessimism and life satisfaction. Participants who
were living with their family were more depressed and having more pessimistic attitude while old age participants living without their family were lonelier, more optimistic and more satisfied with their life.

- There was a significant difference between illiterate, less educated and highly educated old age people on the variable depression, loneliness, optimism, pessimism and life satisfaction. Illiterate old age respondents were highly depressed, most lonely and most pessimistic group while highly educated old age respondents were most optimistic and most satisfied with their life.
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2013
Dedicated

to

My Mother

(Late Mrs. Mahadevi)
Certificate

This is to certify that Mrs. Vijayshri has carried out her research entitled “A Study of Depression in Relation to Loneliness, Optimism and Life Satisfaction” under my supervision and guidance.

To the best of my knowledge this work is her original work and it has not been submitted in any other university or institution for the award of any degree or diploma.

(Dr. Kr. Sajid Ali Khan)
Supervisor
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Chapter-1

Introduction
INTRODUCTION

General aim of the present investigation is to study depression in relation to loneliness, optimism and life satisfaction. In a way this research investigates the relationship of depression with the variables loneliness, optimism and life satisfaction. The population concerned is old age people, who are generally found to be an appropriate source of all the variables like depression, loneliness, optimism and life satisfaction. Old age can be defined as the cumulating developmental event at particular point of time in the life of an individual (Bengtson, 1973). Old age is culturally a relative term (Biswas, 1987) and its definition depends much on its use in a particular context (Roy, 1991). In the Indian context, traditionally one is often considered old when ones eldest son gets married. Thus cultural aspect has an important bearing on when one feels and perceived by others as old, and this is particularly true in the case of women (Sharma & Agrawal, 1996). Depression is a serious condition for people of all ages, but for older people depression is often associated with other co-morbid conditions, such as physical disability (Baldwin, 2008; Chiu, Ames, Draper & Snowdon, 1999) and anxiety (Ames, Flynn, Tuckwell & Harrigan, 1994; Bryant, Jackson & Ames, 2008) that exacerbate the distress experienced by older people and their caretakers.

The present study tend to predict the overall life prospectus of old people including the state of depression, amount of loneliness, optimistic and pessimistic attitude, life satisfaction, their life experiences, expectations towards future, their outlook towards life and the way they interpret their life towards others. We will first discuss the variables in detail to go in depth of their concept.

DEPRESSION: Depression is commonly used term in our day to day life to express the feeling of sadness, grief and unhappiness due to some unpleasant life experiences or events. Often, when a loved one dies or we suffer a personal tragedy or difficulty such as divorce, loss of a job, or death of a loved one, we may feel depressed (some people call this "the blues"). Most of us are able to cope with these and other types of stressful events.

Over a period of days or weeks, the majority of us are able to return to our normal activities. But when these feelings of sadness and other symptoms make it
hard for us to get through the day, and when the symptoms last for more than a couple of weeks, we may have what is called depression. Depression is known clinically by various synonymous terms: major depressive disorder, major depression, clinical depression or unipolar depression. Depression is really a collection of symptoms and can be thought of as a symbolic communication that there is something wrong in an individual’s ability to maintain a comfortable psychological balance.

The Diagnostic and Statistical Manual of Mental Disorders defines a depressed person as experiencing feelings of sadness, helplessness and hopelessness (DSM-IV). William Styron, the bestselling author of Sophie’s choice wrote in his book Darkness visible:

“Depression is a disorder of mood, so mysteriously painful and illusive in the way it becomes known to the self- to the mediating intellect- as to verge close to being beyond description. It thus remains nearly incomprehensible to those who have not experienced it in its extreme mood……. The pain is unrelenting; one does not abandon, even briefly, one’s bed of nails, but is attached to it wherever one goes.” (Styron, 1990 pp.7).

The National Institute of Mental Health (NIMH) is one of 27 components of the National Institute of Health (NIH), the federal government’s principal medical research agency. The NIH is a part of the US Department of Health and Human Services. NIMH (2009) defines depression as follows:

“A depressive disorder is an illness that involves the body mood and thoughts. It affects the way a person eats and sleeps, the way one feels about oneself, and the way one think about things. A depressive disorder is not the same as a passing blue mood. It is not a sign of personal weakness or a condition that can be willed or wished away. People with a depressive illness can’t merely pull themselves together and get better. Without treatment symptoms can last for week, months or years. Appropriate treatment, however can help most people who suffer from depression.”

Tomkins (1963) considers depression as “a syndrome of shame and distress, which also reduces the general amplification of all impulses”. It arises when shame becomes so intense and protracted that a vicious circle develops between increasing shame and depressed.
In Merriam-Webster’s Medical Dictionary depression is “an act of depressing or a state of being depressed: as a (1) state of feeling of sad; (2) a psychoneurotic or psychotic disorder marked specially by sadness, inactivity, difficulty with thinking and concentration, a significant increase or decrease in appetite and time spent sleeping, feelings of dejection and hopelessness and sometimes suicidal thoughts or attempt to commit suicide (Merriam-Webster's, 1993).

In 1975, Seligman described major depression as the “common colc” of psychiatry. Today, the situation has become even worse. Depression is currently affecting about 121 million peoples worldwide (World Health Organization: WHO, 2001a), and the incidence of depressive symptoms increase in all groups of age and in all western cultures. The prevalence of depression in Americans today is staggering. Excluding the mild depression we all occasionally suffer, the National Institute of Mental Health estimates that “four to eight million Americans may be in need of professional care for the depressive illness” (Seligman, 1975).

The National Alliance on Mental Illness (NAMI) defines depression:

“Unlike normal emotional experiences of sadness, loss, or passing mood states, major depression is persistent and can significantly interfere with an individual thoughts, behavior, mood, activity, and physical health.”

**Historical Concept of Depression**

Humans and their evolutionary ancestors have suffered from depression on an equivalent of depression ever since the nervous system became complex. Although a written description of depression does not present until about 1500 BC (Aguirre, 2008). It was thought that ancient man saw mental illness as possession by supernatural forces. Ancient human skulls have been found with large holes in them, a process that has become known as ‘trepanning’ (Zax & Cowen, 1976). Many of the trephines skulls show science of healing after the holes were drilled, indicating that the patients survived after the operation. Although some showed no such healing, indicating that the person died soon after the operation (Aguirre, 2008), the accepted theory is that it was an attempt to let evil spirits out. We do know that again and again human kind has returned to the idea of mental illness being caused by ‘evil forces’.
In the classical Greek era attempts were made to explain physical and psychological phenomena with more scientific approaches. Empedocles (490-430 BC) developed the humoral theory, based on what he regarded as the four basic elements—fire, earth, water and air; each was characterized by a quality like heat, dryness, moisture and cold respectively and a corresponding body humour as blood (in the heart), phlegm (in the brain), yellow bile (in the liver) and black bile (in the spleen) respectively. Disease was said to be caused by imbalance among these humors and the cure was to administer a drug with an opposite quality to the one out of balance (Alaxander & Selesnick, 1966).

In Stanley Jackson's excellent book on the subject, melancholia and depression: *From Hippocratic times to modern times*, he writes, 'In ancient times melancholia was attributed to 'black bile' which was thought to wander around the body, finding to exit or escape. The treatment for the excess of this 'cold bile' was purging, bloodletting, warm-baths, exercise and proper diet (Jackson, 1986).

In the fifth century BC, Hippocrates (460-377 BC), often regarded as the father of modern medicine, separated medicine from religion, magic and superstition. He rejected the prevailing Greek belief that the God sent serious physical disease and mental disturbances as punishment and insisted instead that such illness had natural cause and hence should be treated like other more common maladies, such as cold and constipation (Davison, Neale & Kring, 2002). Melancholia was described as a distinct disease with particular mental and physical symptoms by Hippocrates in his *Aphorisms*, where he characterized all "fears and despondencies, if they last a long time" as being symptomatic of the ailment. Hippocrates emphasized the view that the brain was the central organ of intellectual activity and that mental disorders were due to brain pathology. He also emphasized the importance of heredity and predisposition and pointed out that injuries to the head could cause sensory and motor disorders.

Hippocrates classified mental disorders into three categories: mania, melancholia, and phrenitis, or brain fever (Davison et al., 2002). His theory was that the body contained four bodily fluids or humors. The humors were phlegm, blood, black bile and yellow bile. Illness came from a disturbance in the balance of any of the humors. The view of depression was that there was an excess of black bile within the body. The word melancholia is a derivation of the Greek words for black (melas)
and bile (khole) (Aguirre, 2008). Temperament was thought to be choleric, phlegmatic, sanguine or melancholic depending on the dominating humor.

Plato (427-347 BC) had a retrograde influence on psychology in that he reintroduced a mystical element (Zillboorg & Henry, 1941). He believed in two types of madness, the first was divinely inspired and gave the recipient prophetic powers; the second was caused by disease (Ackerknecht, 1959). He conceived of the two souls: rational soul which is immortal and located in the brain; the other one irrational soul which is mortal and located in emotions in various parts of the body e.g. anger and audacity in the heart. The second type of mental disorder resulted when the irrational soul severed its connection with the rational, resulting in an excess of happiness, sadness, pleasure seeking or pain avoidance. The reason for the abandonment of reason was due to the imbalances explained in Hippocrates’ humoral theory.

Aristotle (384-322 BC), Plato’s pupil, believed in the two parts of man’s soul. However, he said because reason was immortal it must be immune to illness, mental or otherwise, must be rooted in man’s physical structure (Zax & Cowen, 1976). Asclepiads (born c. 124 BC) was one such physician who first noted the difference between acute and chronic mental disorders, and to distinguish between illusions, delusions and hallucinations. He regarded mental disorders as stemming from emotional disturbances, in his terms “passion of sensations” (Zillboorg & Henry, 1941).

Arateus (AD 30-90) was the first to suggest that the origin of mental disorder might not be specifically localized. It could originate from the head of abdomen and the other could be affected as a secondary consequence. He had begun to see that an individual functions as a unitary system. He also worked on idea about pre-morbid personalities and discovered that individuals who became manic were characteristically labile in nature, easily irritable, angry or happy. Those who developed melancholia tended to be depressed in their pre-morbid state (Zax & Cowen, 1976). Emotional disorders were merely an extension or exaggeration of existing character traits, a very original idea for the time. He also observed that mania and depression could occur in the same individual, thereby anticipating Kraeplins’ work on mania and melancholia being part of one disorder by many centuries.
The humoral theory fell out of favor but was revived in Rome by Galen. Claudius Galen of Pergamum (130-200 AD) was arguably the next highly influential physician. In his book *Functions of Diseases of Brain and Spinal Cord*, Galen wrote, “all of the best physicians and philosophers agree that the humors and actually the whole constitution of the body change the activity of the soul. If the first symptoms which appear in the stomach become more severe they are followed by a melancholic affection (Aguirre, 2008). He did make many original contributions concerning the anatomy of the nervous system and maintained a scientific approach to mental disorders, performing a major service in compiling and integrating the existing material in this field (Guthrie, 1946).

After Galen, the medical world remained quiet on the subject of depression. Ishaq Ibn Imran (d. 908) combined the concepts of melancholia and phrenitis. The 11th century Persian physician Ibn Sina also known as Avicenna described melancholia as a depressive type of mood disorder in which the person may become suspicious and develop certain types of phobias. His great contribution to medicine was his massive four volume *canon of medicine*, which was so influential that it was used as a medical reference for the next 600 years. Avicenna believed that melancholy was caused by humoral imbalance. He postulated that melancholy (and all psychological problems) was caused by overheating of black bile.

John Weyer (1515-1588) was the private physician of William, Duke of Cleves (who suffered from depression). The duke protected him and enabled to speak out and reject the doctrine of witchcraft. Weyer was so impressed by the scenes of imprisonment, torture, burning of persons accused of witchcraft that he made a careful study of the entire problem of witchcraft and about 1563 published a book on the subject. In it he argued that a considerable number of those imprisoned, tortured, and burned over witchcrafts were really sick mentally or bodily, and consequently that great wrongs were being committed against innocent people. He stated that natural causes of illness should be looked for in the mentally ill (Aguirre, 2008; Ackerknecht, 1959).

Robert Burton’s *The Anatomy of Melancholy*, published in 1621 delves exhaustively into the cause of depression: “General causes are either supernatural or natural. Supernatural are from God and his angels, or by God’s permission from the
devil and his ministers” (Aguirre, 2008). Burton suggested that melancholy could be combated with a healthy diet, sufficient sleep, music and "meaningful work", along with talking about the problem with a friend. He described in detail the psychological and social causes (such as poverty, fear and solitude) that were associated with melancholia and seemed to cause it (Ackerknecht, 1959). Burton seemed most convinced that a person’s temperament, inherited from their parents, seemed a likely cause of depression. He considered these “inbred” causes. He wrote, “such as the temperature of the father is, such is the son’s.” As for the mother’s contribution, he added, ‘if she be over dull, happy, angry, peevish, discontented, and melancholy, not only at the time of conception, but even all the while she carries the child in her womb, her son will be so likewise affected, and worse (Aguirre, 2008).

The philosopher Spinoza (1632-1677) wrote of the inseparability of the mind and body, that they were identical and that physical processes are experienced psychologically as emotions, thoughts and desires. In his advancement of the views that psychological events had causes the same as physical events, he rejected the idea that man possessed an absolutely free will. In implication this was the beginning of the psychodynamic approach (Zax & Cowen, 1976). Spinoza regarded self-preservation as the cause behind all psychic processes; man loves whatever enhances survival and hates whatever threatens it. We retain consciously only the experiences that positively enhance the body’s power; this notion anticipated Freud’s idea of repression (Zillboorg & Henry, 1941).

Another perspective on the cause of depression was proposed by the physician Aelianus Montaltus who postulated that idleness was to blame: “they that are idle are far more subject to melancholy than such are conversant or employed about any office or business.” Although idleness was considered a major cause of depression, exercising too much especially after eating meat led to corrupted undigested juices being taken into the veins and from there to the head (Aguirre, 2008).

Others who contributed to man’s understanding of his psychological processes, but in an unsystematic way were the great literary figures of the time, particularly William Shakespeare (1564-1616) and Miguel de Cervantes (1547-1616). Shakespeare produced masterful descriptions of the unconsciousness conflicts in man.
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The two heroes in Cervantes' "Don Quixote and Sancho Panza, personify two aspects of the same personality- wishful fantasizing and stabilizing reality. One of the great significances of these works, as well as accurate descriptions of human behavior, was the suggestion that special psychology is not necessarily needed to understand the mentally disturbed. The thought processes of "the Mad" could just be extension of the "normal"; they may just be more vulnerable and less able to control processes that typify us all (Zillboorg & Henry, 1941).

From the early eighteenth century through the mid-nineteenth century, many of the mental hospitals that had appeared in early medieval times and had become prominent by the sixteenth and seventeenth centuries were reformed, changing them from dumping grounds for lives misfits, to places where the mentally ill were humanly treated (Aguirre, 2008). Philip Pinel was a French physician who was best known for his work leading to more humane treatment of institutionalized mental patients. Pinel is said to have begun to treat the inmates as sick human beings rather than as beasts. Many who had been completely unmanageable became calm and much easier to handle. Formerly considered dangerous, they strolled through the hospital and grounds with no inclination to create disturbances or to harm anyone. Light and airy rooms replaced dungeons. Some patients who had been incarcerated for years were apparently restored to health and eventually discharged from the hospital (Davison, Neale & Kring, 2002).

As Pinel said "the whole discipline was marked with regularity and kindness which had the most favorable effect on the insane themselves, rendering even the most furious more tractable" (Selling, 1943, p.65). In 1806, Pinel published his Treatise on Insanity. In his work, he described a four-part diagnostic classification for the major mental illness: melancholy, dementia, mania without delirium. He also rejected the theory of humors as a form of ancient and medieval medicine. In the treatise he wrote, "The symptoms generally comprehended by the term melancholy are taciturnity, a thoughtful pensive air, gloomy suspicions, and a love of solitude". He also noted that these characteristics however also described "some men in otherwise good health and frequently in prosperous circumstances". The distinction he added was the "brooding over his imaginary misfortunes" (Aguirre, 2008).
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One such idea was proposed by Franz Joseph Gall, who believed that specific brain areas control specific body functions (Galder, Gath, Mayou & Lowen, 1998) and furthermore, that character traits are related to the structure of certain areas within the brain (Aguirre, 2008). Gall’s further assumption was that skull shape, particularly protuberances accurately reflected brain shape and with it under or over development of particular character traits, thus the direct method of character reading, “phrenology” was conceived (Zax & Cowen, 1976). An increased interest in brain psychology led to theories that different forms of mental disorders were associated with lesions in different parts of the brain (Ackerknecht, 1959). Esquirol was a student of Pinel; he freed himself from Pinel’s Theory of gastrointestinal localization and adopted gall’s theory of cerebral localization (Ackerknecht, 1959). He is credited with recognizing the force of emotional and moral factors in an individual’s life and also distinguishing between predisposing and precipitating causes (Galder et al., 1998).

During the 18th century, the humoral theory of melancholia was increasingly challenged by mechanical and electrical explanations; references to dark and gloomy states gave way to ideas of slowed circulation and depleted energy. Early nineteenth century psychiatry largely consisted of the romanticists of whom Johann Christian Heinroth was the most prominent representative. He argued melancholia was a disturbance of the soul due to moral conflict within the patient. Heinroth believed that sin was the causal factor in mental illness (Zax & Cowen, 1976). Not sin in the theological sense, that a person’s conflict between their acceptable impulses and their conscience that was the cause of mental illness. These ideas established the early thinking that would influence Freud to a significant extent.

The work of Emil Kraepelin (1855-1926) began in the last twenty years of the nineteenth century, who was a faithful follower of the tradition fostered by Griesinger. At first he leaned strongly to regarding heredity factors as the cause of mental illness; later he shifted toward a belief in the importance of metabolic factors (Zax & Cowen, 1976). His textbook *Lehrbuch der Psychiatrie* published in 1883, not only emphasized the importance of brain pathology in mental disorders but also made several related contributions that helped established this viewpoint. He identified the brain illness that later became known as schizophrenia (Aguirre, 2008). Kraepelin proposed two major groups of severe mental diseases: dementia praecox, an early term for
schizophrenia, and manic-depressive psychosis. He postulated a chemical imbalance as the cause of schizophrenia and an irregularity in metabolism as the explanation of manic-depressive psychosis (Davison et al., 2002).

At the time when Kraepelin was asserting his biological origin of mental illness, Freud was proposing psychological theories to explain mental illness. Psychoanalysis predominated until the 1970s, which was followed by renewed interest in genetic, biochemical and neuropathological causes of mental disorder which came to be known as biological psychiatry.

**Signs and Symptoms of Depression**

Depression is the common cold of psychopathology and has touched the life of us all, yet it is probably the most dimly understood and most inadequately investigated of all the major forms of psychopathology (Seligman, 1975). The clinical depression is characterized by persistent depression varies from person to person, but there are some common signs and symptoms. It’s important to remember that these symptoms can be part of life’s normal lows. But the more symptoms we have, the stronger they are, and the longer they’ve lasted the more likely it is that we’re dealing with depression. For most people, the moods of depression are usually infrequent and life in a short time: for many others, however, this mood is recurrent, pervasive and can be of lethal intensity.

According to the DSM-IV, a person who suffers from major depressive disorder must either have a depressed mood or a loss of interest or pleasure in daily activities consistently for at least a two week period. This mood must represent a change from the person's normal mood; social, occupational, educational or other important functioning must also be negatively impaired by the change in mood. A depressed mood caused by substances (such as drugs, alcohol, medications) or which is part of a general medical condition is not considered to be major depressive disorder. Major depressive disorder cannot be diagnosed if a person has a history of manic, hypo manic or mixed episodes (e.g., a bipolar disorder) or if the depressed mood is better accounted for by schizoaffective disorder and is not superimposed on schizophrenia, schizophreniform disorder, delusional disorder or psychotic disorder. Further, the symptoms are not better accounted for by bereavement (i.e., after the loss
of a loved one) and the symptoms persist for longer than two months or are characterized by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation.

According to Diagnostic and Statistical Manual of Mental Disorders (DSM), a person must have at least five of the following nine symptoms, to be diagnosed with depression, which must have been present during the same two-week period of time.

**Depressed Mood:** The very first symptom of the depressed person is the depressed mood most of the day, nearly every day. It can be observed by himself or by others. For people suffering from depression, the dread of the depressed mood feels as if it will never end. Studies (Roth, Gurney, Garside & Kerr, 1972; Derogates, Lipman, Covi & Rickels, 1972; prusoff & klerman, 1974) have revealed that feelings of sadness and despondency are severe and persistent among depressives. Depressives often feel sad, but sadness need not be present to diagnose depression; if a patient doesn’t feel sad, but is verbally and motorically retarded, cries a lot, has lost twenty pounds in the last month, and the onset of symptoms can be traced to his wife’s death, then depression is the appropriate diagnosis (Seligman, 1975 p.80-81).

**Decreased Interest or Pleasure:** There is a markedly diminished interest or pleasure in all or almost all activities nearly every day. Depressed person does not have any interest in his daily activities like morning walk, talking bath, brushing teeth, clothing, taking food etc. Depressed person may stop talking care of him and stop grooming (Aguirre, 2008; Seligman, 1975). F. Scott Fitzgerald said “Every act of life, from the morning toothbrush to the friend at dinner, became an effort. I hated the night when I couldn’t sleep and I hated the day because it went toward night” (Oates, 2001 p 142). Depressed people engage in fewer of the activities that they used to find pleasant (Lewinsohn & Libet, 1972).

In severe cases, there often is complete paralysis of the will. The patient has no desire to do anything, even those things which are essential to life. Consequently he may be relatively immobile unless prodded or pushed into activity by others. It is sometimes necessary to pull the patient out of bed, wash, dress, and feed him. In extreme cases, even communication may be blocked by the patient’s inertia (Beck, 1967 p.28).
Weight Changes: People with depression generally feel loss of appetite and so have weight loss; but in other cases depressed may feel increased appetite which can be a cause of weight gain. It can be the changes of more than 5% of the body weight in a month. Consistent with the behavioral evidence, depressives alone appear to be somatically hypo reactive, reporting poor appetite and reduced sexual desires (Derogateset al., 1972; Prusoff & Klerman, 1974).

Sleep Disturbances: Another important symptom is the change in sleep pattern of the depressed persons. Generally they complain of an inability to sleep or insomnia, when they simply lie in bed tormented by thoughts of how terrible they feel. Insomnia is not a symptom in all cases, it can be just reversed which is called hypersomnia, in which the person sleeps too much. The Depressed finds him unable to go to sleep or unable to get back to sleep when he wakes up early in the morning (Aguirre, 2008; Seligman, 1975).

Psychomotor Agitation or Retardation: A depressed person feels psychomotor agitation or retardation nearly every day. It means that the person feels or appears to be slowed down in performing day to day activities. Psychomotor retardation repeatedly has been found to be characteristic of depression (Friedman, 1964). Furthermore, Lewinsohn & his colleagues (Lewinsohn & Grey, 1973; Lewinsohn & Libet, 1972; Lewinsohn & MacPhillamy, 1974) have found that depressed individuals tend to engage in relatively fewer activities in general and an even fewer number of pleasant or rewarding activities than do non-depressed individuals. Depressed men and women don’t do much; the word depression itself probably has its etymological roots in the reduced activity of the patient (Seligman, 1975). When depressives are tested in a variety of psychomotor task, such as reaction time, they prove to be slower than normal (Friedman, 1964; Martin & Rees 1966; Shapiro & Nelson, 1955).

A patient may manifest an agitated state and may show extreme restlessness, both physical and psychological. In such case, the patient may pace the floor, pull clothes, hair, and wring his hands, bites his nails or lips, and appears unable to rest for any length of time. His verbal expressions may also manifest the same difficulty (Mendals, 1970).

Loss of Energy or Fatigue: Another symptom of the depressed is the loss of energy or fatigue all the time. “Our fatigue is often caused not by work, but by worry,
frustration and resentment,” said Dale Carnegie (2004, p.219). Depressives typically are less responsive and take little interest in things around them; they feel low in energy or slowed down, and show behavioral retardation. They also show a desire to escape, and a reduced motivation to continue living (Derogates et al., 1972; Prusoff & Klerman, 1974; Roth et al., 1972)

**Feelings of Worthlessness or Guilt:** A depressed individual complains of feelings of worthlessness or inappropriate guilt almost every day. Depressives tend to exhibit a negative view of themselves, their world, and their future (Beck, 1967). Symptoms such as guilt, low self-esteem, and in decisiveness are also apparent (Beck, 1967; Derogates et al., 1972; Prusoff & Klerman, 1974; Roth et al., 1972). He often becomes aware of strong feelings of self-dislike: he feels worthless and guilty about his shortcomings. This guilt can at times be delusional because the things that a person feels they have done are often not as bad as their loved ones or objective observers would consider. Nevertheless guilt make a depressed one more depressed as it increases the feeling of shame in him. He harshly criticizes himself for perceived faults and mistakes. He believes that nothing he can do will alleviate his condition, and the future looks black. Thus, depressives experience dominant feelings of hopelessness and helplessness on the one hand, and feelings of self-blame and self-criticism on the other hand.

**Brain Fog or Negative Cognitive Set:** A depressed person may have a diminished ability to think or concentrate nearly every day. He is unable to make decisions by his own, and also has trouble in focusing and remembering things. This is the cognitive component of depression which is characterized in terms of both what and how depressed individual think. Depressives have been found to differ from non-depressives in their manifest dream content, reporting themes of personal loss and failure (Beck & Hurvich, 1959; Beck & Ward, 1961; Hauri, 1976), and in their greater tendency to identify with the victimized rather than the victimizing on a pictorial projective device (Beck, 1961).

A depressed woman can defend herself in such a way: “But I had probably taken the wrong bus, and even if I found the right store, I had pick out the wrong size, style, and color. Anyway, I had looked just as bad in new clothes as in old clothes, because I am basically unattractive.” Depressed people believe themselves to be even
more ineffective than they actually are: small obstacles to success are seen as impassible barriers, difficulty in dealing with a problem is seen as complete failure, and even outright success is often misconstrued as failure (Seligman, 1975). Beck (1967) views the negative cognitive set as the universal hallmark of depression.

A number of investigators (Kuiper, 1978; Rizley, 1978; Seligman, Abramson, Semmel & Von Baeyer, 1979) have found that depressives are particularly likely to attribute negative outcomes (e.g. failure) to internal factors (e.g. personal incompetence). Other investigators (De Monbreum & Craighead, 1977; Nelson & Craighead, 1977; Wener & Rehm, 1975) have found that relative to non-depressives, depressed people tend to underestimate the amount of reinforcement they receive. They suggest that this apparent no responsiveness to reinforcement is a result of distorting cognitive activity.

**Suicidal Thoughts:** There are recurrent thoughts of death, with or without a plan, or a suicide attempt. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functional areas. In a careful study of 134 successful suicides, Robins et al. (1959) found that 94 percent had been psychiatrically ill before committing suicide and that 45 percent had been depressed. Sainsbury (1968) working in England, suggested that an even higher percentage of successful suicides were suffering from depression.

"One out of 200 persons affected by a depressive illness will die a suicidal death." This estimate is probably on the low side. In addition to the immeasurable cost in individual misery, the economic cost is large: treatment and loss of time at work alone cost between 1.3 and 4.0 billion dollars a year (Williams, Friedman & Secunda, 1970). Suicide usually has its roots in depression, and depression dissipates in time. When a person is depressed, his view of the future is bleak; he sees himself as helpless and hopeless (Seligman, 1975, p 89). Depressed people all the time remember negative thoughts than the positive thoughts. Several studies have indicated that memory functions of depressives differ from those of non-depressives. Lishman and his associates (Lishman, 1972; Lloyd & Lishman, 1975) found that depressive subjects were more likely to recall negative events than non-depressives.

Other than these, some other symptoms are also there which can be seen in the depressed patients frequently. These are as follows:
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Unexplained Aches and Pain: Depressed patients complain of physical symptoms affecting every system of the body— including dry mouth, aches and pains, headache, neuralgia, tight feelings in the chest, and difficulty in swallowing. Constipation is also common. It may become quite severe and the patient may have ten days or more without a bowel moment. The depressive may complain of being “blocked up” or of “rotting inside” (Mendals, 1970).

Crying: Crying occurs frequently among mildly to moderately depressed people, not only in response to specific experiences, but also because of minor frustrations or when angered, or sometimes even, for no apparent reason. More severely depressed patients may not cry. They say,” if only I could cry”, or “I feel as if I want to cry. but I am all dried up inside” (Mendals, 1970).

Anxiety: Although sadness is the central mood disturbance, many depressed patients also complain of tension, uncertainty, vague and nonspecific fears, and the multitude of concerns. They may have the tremor and sweaty palms that are usually associated with an anxiety state (Mendals, 1970).

Physical Diseases: A depressive illness can also precede a new episode of physical disease. Systematic reviews of eleven prospective cohort studies in healthy populations showed that depression predicted later development of coronary heart disease in all of them (OR 1.18 to 5.4, median=2.05; for new cardiovascular events, after adjustment for traditional risk factors: OR=1.90, 95% CI=1.48-2.42) (Hemingway & Marmot, 1999; Nicholson, Kuper & Hemingway, 2006). In prospective population based cohort studies, depression has been shown to predict the later development of colorectal cancer (Kroenke, Bennett & Fuchs, 2005), back pain (Larson, Clark & Eaton, 2004: Jarvik, Hollingworth & Heagery, 2005: Reid, Williams, & Concato, 2003), irritable bowel syndrome (Ruijgomez, Rodriguez & Panes, 2007), multiple sclerosis (Grant, Mc Donald & Patterson, 1989). There is inconsistent evidence that depression may precede the onset of type 2 diabetes (Prince, Patel & Saxena, 2007). The researchers argue that there is consistent evidence for depression leading to physical ill-health in coronary heart disease and stroke, and depression in pregnancy leading to infant stunting and infant mortality.
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**Lack of Aggression:** Depressed people are virtually drained of overt hostility towards others. Freud (1917) believed that when a love object is lost, the depressive become angry; he turns this freed anger inward on himself, since the person who “abandoned” him is no longer available to bear the brunt of the depressive’s hostility. This introjected hostility causes depression, self-hate, suicidal wishes and of course the characterizing symptom, lack of outward hostility. Freud and his followers (Freud 1917; Abraham, 1911, 1916; Jacobson, 1971; Klein, 1968; Rado, 1928) made the lack of aggression as the basis of the psychoanalytic theory of depression.

**Loss of Libido:** Sexual interest wanes, and impotence can accompany severe depression. People the depressive once found exciting and amusing become uninteresting; life loses its zest (Seligman, 1975 p.91).

**Pessimism:** The label “depression” applies to passive individuals who believe they can’t do anything to relieve their suffering, who becomes depressed when they lose an important source of nurture- the perfect case for learned helplessness to model; but it also applies to agitated patients who make many active responses and who become depressed with no obvious external cause (Seligman, 1975). People who have a pessimistic explanatory style and who suffer bad events will probably become depressed, whereas the people who have the opposite “optimistic” explanatory style and suffer bad events will tend to resist depression (Sweeney, Anderson & Bailey, 1986; Robins 1988; Peterson & Seligman, 1984).

**Theories of Depression**

Psychoanalytic View

Psychodynamic theory was the dominant school of thought within psychiatry and much of clinical psychology during the first part of the 20th century. Early psychodynamic approaches focused on the interrelationship of the mind (or psyche) and mental, emotional or motivational forces within the mind that interact to shape a personality. The famous Dr. Sigmund Freud, who is credited with inventing psychodynamic theory and psychoanalysis, influentially suggested that the unconscious mind is divided into multiple parts, including the irrational and impulsive Id (a representation of primal animal desires), the judgmental Super-ego (a
representation of the rules and norms of society inside the mind), and the rational Ego (which serves as an attempt to bridge the other two parts).

According to Freud (1917), the conscious and unconscious parts of the mind can come into conflict with one another, producing a phenomenon called repression (a state where we are unaware of having certain troubling motives, wishes or desires but they influence us negatively just the same). In general, psychodynamic theories suggest that a person must successfully resolve early developmental conflicts (e.g., gaining trust, affection, successful interpersonal relationships, mastering body functions, etc.) in order to overcome repression and achieve mental health. Mental illness, on the other hand, is a failure to resolve these conflicts.

Depression could be seen as a failure of the normal mourning process. Freud regarded loss of a love object as essential in the development of depression, which need not involve the actual death of the person. He suggested that the withdrawal of love and support by a significant figure (usually a parent) during a crucial stage of development predisposes an individual to depression later in life. According to Freud, it is this loss, later recapitulated in symbolic form that gives rise to depression. He considered self-approach and loss of self-esteem developed in depression as being directed toward the introjected and the lost person; that is, when a depressed patient dwells on his own misdemeanors, deficiencies, and inadequacies, he is expressing his unconscious feelings about the lost person. Instead of simply identifying with the lost person, the patient assumes the perceived attributes of this person; as a result he relates exaggerated accounts of his own sins and inadequacies, even though they have no relationship in reality to his own life; they represent his concepts and unexpressed feelings about the object (Freud, 1917). Thus the depression becomes a narcissistic inner-directed process, instead of being outer-directed.

According to another psychoanalyst Fenichel (1945) the premorbid depressive depends on the opinions of others for him to regulate his self-esteem. When “narcissistic” supplies like love are not forthcoming from others, person loses his self-esteem and becomes depressed.

Melanie Klein (1948) proposed a different psychodynamic basis for the development of depression. According to Klein, the basis for depression is formed during the first year of life. She suggested that all infants normally pass through a
developmental stage, which she termed the *depressive position* - a phase of sadness, fear and guilt. The infant feel frustrated by a lack of love and becomes angry at the mother, developing, destructive and sadistic fantasies toward her. The infant comes to fear that these fantasies will actually destroy the mother and develops feelings of anxiety and guilt. Furthermore, the infant is unable to differentiate between the external world (the mother) and the internal world (itself and its internal images of the mother), and the fear of destroying the mother becomes, in part, a fear of destroying itself. This is the phase that Klein termed the depressive position.

As a summary, psychoanalytic views of depression are outcome oriented. People show the symptoms of depression when bad outcome occur. Although the psychoanalytic view can account for lowered self-esteem and sad affect in depression, it has more difficulty accounting for the negative cognitive set and inhibition of voluntary responding associated with depression (Garber & Seligman, 1980).

**Cognitive View**

Cognitive behavioral theorists suggest that depression results from maladaptive, faulty, or irrational cognitions taking the form of distorted thoughts and judgments. Depressive cognitions can be learned socially (observationally) as is the case when children in a dysfunctional family watch their parents fail to successfully cope with stressful experiences or traumatic events. Or, depressive cognitions can result from a lack of experiences that would facilitate the development of adaptive coping skills.

According to cognitive theorists depressed people tend to view themselves, their environment, and the future in a negative, pessimistic light. As a result, depressed people tend to misinterpret facts in negative ways and blame themselves for any misfortune that occurs. This negative thinking and judgment style functions as a negative bias; it makes it easy for depressed people to see situations as being much worse than they really are, and increases the risk that such people will develop depressive symptoms in response to stressful situations.

Different cognitive behavioral theorists have developed their own unique twist on the Cognitive way of thinking. Some of these are as follows:
Beck’s cognitive theory of depression: According to Dr. Aaron Beck, negative thoughts, generated by dysfunctional beliefs are typically the primary cause of depressive symptoms. A direct relationship occurs between the amount and severity of someone’s negative thoughts and the severity of their depressive symptoms. In other words, the more negative thoughts a person experience, the more depressed he will become. Beck (1967) says, “The affective response is determined by the way an individual structures his experience. Thus if an individual’s conceptualization of a situation has an unpleasant content he will experience a corresponding unpleasant affective response.”

Beck also asserts that there are three main dysfunctional belief themes or "schemas"- a pattern or framework of thought- with which he approaches and experiences life and that dominate depressed people's thinking: 1) I am defective or inadequate; 2) All of my experiences result in defeats or failures, and 3) The future are hopeless. Together, these three themes are described as the Negative Cognitive Triad. The nature and specific characteristics of these schemas determine individual responses (Beck, 1967).

Beyond the negative content of dysfunctional thoughts, these beliefs can also warp and shape what someone pays attention to. Beck asserted that depressed people pay selective attention to aspects of their environments that confirm what they already know and do so even when evidence to the contrary is right in front of their noses. This failure to pay attention properly is known as faulty information processing.

The following are the thought processes that Beck (1967) regarded as important in the development of the cognitive state:

Arbitrary inference, is a tendency to draw a conclusion (usually of a personally denigrator nature) from a situation that is essentially neutral or impersonal. There is a failure to realize that there are more probable explanations for particular situations.

Selected abstractions, a concentration on one aspect of a situation that is taken out of context and exaggerated. This occurs when an individual, corrected for one minor aspect of his work, immediately jumps to the conclusion that everything he does is inadequate: he cannot be easily dissuaded from this idea.
Overgeneralization, which involves an overall conclusion based on a single, often minor, experience or incident.

Magnification and minimization are distorted evaluations and exaggerations of a situation of experience. Here a person exaggerates his difficulties and limitations and minimizes his achievements and capacities.

Inexact labeling is the labeling of an experience in an exaggerated fashion, with a consequent direct association between the affective response and the label instead of between the actual response and the actual experience.

On the basis of these and other observations, Beck suggests that it would be appropriate to consider depression as a “primary disorder of thought with a resultant disturbance of affect and behavior in consonance with the cognitive distortions,” rather than a primary affective disturbance.

Albert Ellis' Cognitive Theory of Depression: Dr. Albert Ellis pointed out that depressed people's irrational beliefs tend to take the form of absolute statements. Ellis describes three main irrational beliefs typical of depressive thinking:

1. "I must be completely competent in everything I do, or I am worthless."
2. "Others must treat me considerately, or they are absolutely terrible."
3. "The world should always give me happiness, or I will die."

Because of these sorts of beliefs, depressed people make unqualified demands on others and/or convince themselves that they have overwhelming needs that must (simply must!) be fulfilled. Ellis, well known for his rather acid wit, referred to this tendency towards absolutism in depressive thinking as "Musterbation."

Ellis also noted the presence of information processing biases in depressed people's cognitions. Like Beck he noted that depressed people tend to: ignore positive information, pay exaggerated attention to negative information, and to engage in overgeneralization, which occurs when people assume that because some local and isolated event has turned out badly, that this means that all events will turn out badly. For example, depressed people may refuse to see that they have at least a few friends, or that they have had some successes across their lifetime (ignoring the positive). Or,
they might dwell on and blow out of proportion the hurts they have suffered (exaggerating the negative). Other depressed people may convince themselves that nobody loves them or that they always mess up (over generalizing).

Ellis' ideas led him to develop Rational Emotive Therapy (RET), which was later renamed Rational Emotive Behavior Therapy (REBT).

**Bandura's Social Cognitive Theory of Depression**: Psychologist Albert Bandura's Social Cognitive learning theory suggested that people are shaped by the interactions between their behaviors, thoughts, and environmental events. Each piece in the puzzle can and does affect the shape of the other pieces. Human behavior ends up being largely a product of learning, which may occur vicariously (e.g., by way of observation), as well as through direct experience.

Bandura pointed out that depressed people's self-concepts are different from non-depressed people's self-concepts. Depressed people tend to hold themselves solely responsible for bad things in their lives and are full of self-recrimination and self-blame. In contrast, successes tend to get viewed as having been caused by external factors outside of the depressed person's control. In addition, depressed people tend to have low levels of self-efficacy (a person's belief that they are capable of influencing their situation). Because depressed people also have a flawed judgmental process, they tend to set their personal goals too high, and then fail short of reaching them. Repeated failure further reduces feelings of self-efficacy and leads to depression.

An important psychological concept, which is closely related to Bandura's self-efficacy idea, is Julian Rotter's concept of locus of control. When people believe that they can affect and alter their situations, they may be said to have an internal locus of control and a relatively high sense of self-efficacy. When individuals feel that they are mostly at the mercy of the environment and cannot alter their situations, they have an external locus of control, and a relatively low sense of self-efficacy. To extend the above explanation, depressed people tend to have an external locus of control and a low sense of self-esteem.

**Hopelessness Theory**: Hopelessness theories characterize depressives as very pessimistic about attaining their goal. Hopelessness described by Schmale (1958) is a
state that occurs when a person feels personally responsible for the situation and believes that nothing he or anyone else can do, will alter it. He also has feelings of worthlessness, believing that he does not deserve assistance from others. According to theorists (Arieti, 1959; Melges & Bowlby, 1969) failure to attain desired outcomes in the present is not sufficient for depression; rather, people must believe they will not attain such goals in the future as well in order to become depressed. Thus hopelessness theories of depression characterize the disorder as future oriented and outcome oriented.

Beck (1967) has focused on features of self-blame and heightened responsibility for failure in depression; he also regards hopelessness as a core symptom. Lichtenberg (1957) sees hopelessness as the defining characteristic of depression:

*Depression is defined as a manifestation of felt hopelessness regarding the attainment of goals when responsibility for the hopelessness is attributed to one’s personal deficits. In this context hope is conceived to be a function of the perceived probability of success with respect to goal attainment.*

**Helplessness Theory:** The phrase “learned helplessness” first was used by Overmier & Seligman (1967) and Seligman & Maier (1967) to describe the debilitated escape-avoidance responding shown by dogs exposed to uncontrollable shocks in the laboratory. Seligman (1972, 1973, 1974, and 1975) has argued that learned helplessness plays a part in a wide variety of human conditions, including child development, stomach ulcers, depression and death. According to Schmale (1958) helplessness is the term applied when the individual gives up because of a failure of external sources of emotional support. He does not feel responsible for his dilemma or capable of influencing it.

The typical learned helplessness experiment involves the *triadic design* in which one group of subjects receives controllable events, a second group of subjects yoked to the first group receives uncontrollable events of the same intensity and duration, while a third group of subjects is not exposed to either controllable or uncontrollable events. College student volunteers were exposed to either loud controllable noises that terminate by pressing a button four times or uncontrollable noises that terminated independently of their responses, while others were not
exposed to any noises. Subjects subsequently were tested on a hand shuttle box task in which noise termination was controllable for all subjects. As a result, the groups that had originally received controllable noises or no noises adequately learned to terminate the noises in the shuttle box task, subjects who had received prior uncontrollable noises failed to terminate the noises during the shuttle box procedure (Garber & Seligman 1980).

Seligman and his colleagues (Seligman, 1975; Seligman, Klein & Miller, 1976) originally proposed that the laboratory phenomenon of learned helplessness provides a model of human depression. So the expectation that outcomes are independent of one’s responses is sufficient for the motivational, cognitive and affective components of depression. The logic of the helplessness hypothesis is that if people expect that their responses will not affect some outcome, that they will be less likely to make such responses. According to this model of depression depressives have a negative cognitive set incorporating the belief that their actions are doomed to failure (Garber & Seligman, 1980).

Universal helplessness is characterized by the belief that an outcome is independent of all of one’s own responses as well as the responses of other people. Personal helplessness, on the other hand, is the case where the individual believes that there exist responses that would contingently produce the desired outcome, although he or she does not possess them (Garber & Seligman, 1980).

Useful as it was for explaining why some people became depressed, the initial learned helplessness theory could not account for or explain why many people did not become depressed even after experiencing many unpleasant life events. With further study, Seligman modified the learned helplessness theory to incorporate a person’s thinking style as a factor determining whether learned helplessness would occur. He suggested that depressed people tended to use a more pessimistic explanatory style when thinking about stressful events than did non-depressed people, who tended to be more optimistic in nature.

The original hypothesis makes the interesting prediction that people will display the symptoms of depression even when they are certain a bad outcome will not occur if they believe the occurrence of this outcome is beyond their control. Unlike outcome oriented theories of depression, the learned helplessness model
emphasizes the controllability rather than the occurrence of bad outcomes in the etiology of depression (Garber & Seligman, 1980).

Many investigators have pointed to shortcomings in the original learned helplessness model of depression. Some argued that the original hypothesis cannot deduce lowered self-esteem as a symptom of depression (Abramson, Seligman & Teasdale, 1978; Blaney, 1977). Also some argued that the original hypothesis cannot explain variations in the generality and chronicity of depressive symptoms (Abramson et al., 1978).

The reformulated learned helplessness hypothesis of depression emphasizes that depression is a syndrome made up of various components which have different etiologies. According to the reformulation depressed affect is outcome related. Self-esteem on the other hand depends on whether or not people attribute their lack of control to internal factors. Finally, the expectation that one's own responses do not control outcomes is sufficient for the motivational and cognitive deficits in depression (Garber & Seligman, 1980).

According to Seligman (1975, p.93) learned helplessness is caused by learning that responding is independent of reinforcement; so the model suggests that the cause of depression is the belief that action is futile. Seligman believes that what links the experiences and lies at the heart of depression is unitary: the depressed patient believes or he learned that he cannot control those elements of his life that relieve suffering, bring gratification, or provide nurture. In short he believes that he is helpless.

Reinforcement (Behavioral) Theory

The reinforcement theory is outcome oriented and non-cognitive. The theory views depression as a reduction in activity that occurs when accustomed rewards are withdrawn (Ferster, 1965; Lazarus, 1968; Lewinsohn, 1974; skinner, 1953).

To the behaviorist, human behavior has nothing to do with internal unconscious conflicts, repression, or problems with object representations. Rather, a behavioural psychologist uses principles of learning theory to explain human behavior. In the mid-1970s, Peter Lewinsohn (1974) argued that depression is caused by a combination of stressors in a person's environment and a lack of personal skills.
More specifically, the environmental stressors cause a person to receive a low rate of positive reinforcement. Positive reinforcement occurs when people do something they find pleasurable and rewarding. He argued that a vicious cycle occurs in depression. Initially infrequent rewards for responses serve to reduce the activity of depressive, in turn, leads to even fewer rewards in the future.

According to behavioural theory, dysfunctional or unhelpful behavior such as depression can be learned. Because depression is learned, behavioural psychologists suggest that it can also be unlearned. Theorists like Ferster (1966, 1973), Kaufman & Rosenblum (1967), Liberman & Raskin (1971), and McKinney & Bunney (1969) believe that depression is caused by a loss of reinforces or the extinction of responding. This theory emphasizes whenever a person receives a low rate of rewards, he will become depressed. The person’s belief about control, probabilities of outcomes and certainty are not relevant to whether or not he will become depressed (Garber & Seligman, 1980).

In addition, depressed people typically have a heightened state of self-awareness about their lack of coping skills that often leads them to self-criticize and withdraw from other people (e.g., depressed people may avoid social functions and get even less positive reinforcement than before). To make matters worse, some depressed people become positively reinforced for acting depressed when family members and social networks take pity on them and provide them with special support because they are "sick".

**Types of Depression**

Depression comes in many shapes and forms. The different types of depression have unique symptoms, causes and effects. Knowing what type of depression one have can help to manage the symptoms and get the most effective treatment. In discussing the problems of classification, Mendals (1968) listed some of the subtypes of depression that have been described:

*A short list would include psychotic, neurotic, reactive, psychotic reactive, evolution, agitated, endogenous, psychogenic, symptomatic, presenile, senile, acute, chronic and of course manic-depressive psychosis and melancholia (minor or major):*
as well as depression in sexual perversion, alcoholic depression, and depressive symptoms resulting from organic disorder.

Major Depression: Major depression is characterized by the inability to enjoy life and experience pleasure. The symptoms are constant, ranging from moderate to severe. Left untreated, major depression typically lasts for about six months. Some people experience just a single depressive episode in their lifetime, but more commonly, major depression is a recurring disorder. However, there are many things we can do to support the mood and reduce the risk of recurrence.

Atypical Depression: Atypical depression is a common subtype of major depression. It features a specific symptom pattern, including a temporary mood lift in response to positive events. It usually begins in adolescence and is more commonly seen in women. You may feel better after receiving good news or while out with friends. However, this boost in mood is fleeting. Other symptoms of atypical depression include weight gain, increased appetite, sleeping excessively, a heavy feeling in the arms and legs, and sensitivity to rejection. Symptom such as oversleeping, overeating and being extremely sensitive to rejection are characteristic of atypical depression. It is called atypical, because although there is depressed mood, “typical” symptoms such as insomnia and low appetite are not present. Atypical depression responds better to some therapies and medications than others, so identifying this subtype can be particularly helpful (Aguirre, 2008).

Postpartum Depression: Many new mothers suffer from some fleeting form of the “baby blues”. Postpartum depression, in contrast, is a longer lasting and more serious depression triggered, in part, by hormonal changes associated with having a baby; and is suffered by about 10% of new mothers. Postpartum depression usually develops soon after delivery, but any depression that occurs within six months of childbirth may be postpartum depression (Aguirre, 2008).

Dysthymias (recurrent, mild depression): Dysthymia is a type of chronic “low-grade” depression. More days than not, the person feel mildly or moderately depressed, although he may have brief periods of normal mood. The symptoms of dysthymia are not as strong as the symptoms of major depression, but they last a long time (at least two years). These chronic symptoms make it very difficult to live life to the fullest or to remember better times. Some people also experience major depressive
episodes on top of dysthymia, a condition known as “double depression.” If someone suffers from dysthymia, he may feel like he has always been depressed. Or he may think that his continuous low mood is “just the way he is.” However, dysthymia can be treated, even if its symptoms have gone unrecognized or untreated for years.

**Seasonal Affective Disorder (SAD):** It is also called seasonal depression. Generally, people who suffer from this form of depression are especially sensitive to the diminishing hours of the day light in the late fall or early winter. There’s a reason why so many movies and books portray rainy days and stormy weather as gloomy. Some people get depressed in the fall or winter, when overcast days are frequent and sunlight is limited. This type of depression is called seasonal affective disorder (SAD). Seasonal affective disorder is more common in northern climates and in younger people. It is depression that occurs only at a certain time of the year, usually winter, when the number of daylight hours is lower. It is sometimes called "winter blues". Although it is predictable, it can be very severe. Like depression, seasonal affective disorder is treatable. Light therapy, a treatment that involves exposure to bright artificial light, often helps relieve symptoms.

**Bipolar Disorder:** Bipolar disorder, also known as manic depression, is characterized by cycling mood changes. It is important to make the distinction between major depression and bipolar depression because treating a patient with bipolar depression with an antidepressant alone can cause the person to become manic, which is the up phase of the condition. Both phases of the condition can disrupt a life. Episodes of depression alternate with manic episodes, which can include impulsive behavior, hyperactivity, rapid speech, and little to no sleep. Typically, the switch from one mood extreme to the other is gradual, with each manic or depressive episode lasting for at least several weeks. When depressed, a person with bipolar disorder exhibits the usual symptoms of major depression. However, the treatments for bipolar depression are very different. In fact, antidepressants can make bipolar depression worse.

**Psychotic Depression:** Psychotic depression refers to the situation when depression and hallucinations or delusions are experienced at the same time (co-occur). Person begins to imagine or hear and see things that have no basis in reality. This may be the result of depression that becomes so severe that it results in the sufferer losing touch with reality. Individuals that primarily suffer from a loss of touch with reality (for
example schizophrenia) are thought to suffer from an imbalance of dopamine activity in the brain and to be at risk of subsequently becoming depressed.

**Premenstrual Dysphoric Disorder:** It is a condition experienced by about 5% of menstruating women. It is different from premenstrual syndrome in that the symptoms of depression are more severe and last longer, and it is more associated with irritability. It appears to be caused by the hormonal changes that takes place around the menses and is characterized by depressed mood, anxiety, tension and irritability (Aguirre, 2008).

Whatever the type of depression and whether it is men or women, depression is a serious condition that takes its toll on the quality and, at times the actuality of life. William Styron, the author of darkness visible, describes this best when he says, “in depression..........faith in deliverance, in ultimate restoration is absent. The pain is unrelenting, and what makes the condition intolerable is the foreknowledge that no remedy will come- not in a day, an hour, a month or a minute.............it is hopelessness even more than pain that crushes the soul” (Aguirre, 2008).

**Endogenous Depression:** The most useful and best confirmed typology of depression is the *endogenous-reactive dichotomy*. The reactive depressions are by far the most common, and the kind familiar to us all. Roughly 75 percent of all depressions are reactions to some external event, such as the death of a child. Reactive depressions do not cycle regularly in time, are not usually responsive to physical therapies like drugs and electroconvulsive shock (ECS), are not genetically predisposed, and are usually somewhat milder in their symptoms than endogenous depression (Seligman, 1975, p.78).

*Endogenous depressions* usually cycle regularly in time, and can be either bipolar or unipolar. Bipolar depression is called manic depression that is the individual repeatedly cycles through despair, a neutral mood, a hyperactive ad superficially euphoric state of mania, and back through neutrality to despair. Early in this century, all depressions were mistakenly called manic-depressive illness, but it is now known that depression usually occurs without mania, and that mania can occur without depression. Unipolar endogenous depression consists of a regular alternation of despair and neutrality, without the occurrence of mania. Endogenous depressions often respond to drug treatment and ECS, and may be hormonal. They may also
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Genetically predisposed (Winokur, 1973), and are often more severe in their symptoms than reactive depressions (Seligman 1975, p.78-79).

Causes of Depression

Medical research has contributed much to our understanding of depression. However, scientists do not know the exact mechanism that triggers depressive illness. Probably no single cause gives rise to the illness, and researchers continue to piece the puzzle together. In the past, doctors believed that depression was the result of thoughts or emotions that were troubling for a person. More recently, experts realize that there can be several factors working together that will lead a person to become depressed. The three most important of these are biological, genetic, and environmental factors.

Biological causes of depression

Biological causes of depression include changes in the brain anatomy and chemistry of the brain, such as fluctuations in the levels of important hormones and neurotransmitters. Additional research data indicate that people suffering from depression have imbalances of neurotransmitters, natural substances that allow brain cells to communicate with one another. The neurotransmitters implicated in depression are serotonin, nor-epinephrine, epinephrine, dopamine and corticotrophin releasing factor (CRF).

The brain stem is a collection of nerves known as the raphe nuclei, which produce and release the neurotransmitter serotonin to the rest of the brain. Serotonin plays an important role in the regulation of body temperature, mood, sleep, sexuality, and appetite. Scientists think a deficiency in serotonin may cause the sleep problems, irritability, and anxiety associated with depression. Post-mortem studies have confirmed decreased serotonin in the brains of depressed patients and those who committed suicide.

A part of the brain known as the locus ceruleus, which is under the cerebellum, produces most of the nor-epinephrine in the brain. A decreased amount of nor-epinephrine, which regulates alertness and arousal, may contribute to the fatigue and depressed mood of the illness.
Epinephrine is a neurotransmitter closely related to nor-epinephrine. It is the "fight-or-flight" hormone and is released from the adrenal glands when danger threatens. When released into the bloodstream, it quickly readies the body for action in emergency situations. The hormone boosts the supply of oxygen and energy giving glucose to the brain and muscles. Some people have poorly regulated epinephrine regulation, and this can lead to severe anxiety and stress, both of which can lead to depression.

There is a group of nerve cells known as the substantia nigra, which lie deep within the brain and are responsible for most of the dopamine production. Dopamine is typically associated with the pleasure system of the brain and leads to the sense of enjoyment associated with certain activities such as eating, sex, and certain drug use. Dopamine is involved in depression and low level of dopamine lead to marked lethargy. It has been shown that amphetamines (which increase dopamine in the brain) and dopamine reuptake blockers (which block the reuptake of dopamine thereby increasing the dopamine level) have potent antidepressant effects. However these drugs quickly lose their effect as they lead to depletion of dopamine, which in turn leads to depression.

The hypothalamic-pituitary-adrenocortical axis may also play a role in depression. The limbic area of the brain is closely linked to emotion and also affects the hypothalamus. The hypothalamus in turn controls various endocrine glands and thus the levels of hormones they secrete. CRF is released from neurons in the hypothalamus, especially under conditions of stress. CRF sends a message to the adrenal glands, which in turn release cortisol, a hormone that the body produces in response to stress, anger, or fear. Several studies have demonstrated that there is an increased production of cortisol in depressed patients perhaps because of over-secretion of thyrotrophic- releasing hormone by the hypothalamus (Garbutt, Mayo, little, Gillette & Mason, 1994).

Bunney, Mason & Hamburg (1965) have studied a group of patients with recurrent psychotic depressive episodes. They found an association between the onset of each episode and an increase in cortisol production. The excess secretion of cortisol in depressed persons also caused enlargement of their adrenal glands (Rubin, Phillips, Sadow & McCracken, 1995). The over-secretion of cortisol in depression may also be
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associated with neurotransmitters. High level of cortisol may lower the density of serotonin receptors (Roy, Everett, Pickar & Paul, 1987) and impair the function of noradrenergic receptors (Price, Charney, Rubin & Heninger, 1986).

Genetic causes of depression

According to "scientists find genetic" (2011), major depression affects approximately 20 percent of people at some point in their lives and is forecast to become the disorder with the highest disease burden in the world by 2020, with only heart disease rivaling it in impact as a public health problem. Severe and recurring depression affects up to 4 percent of the population and is notoriously hard to treat. Family studies have long indicated that depression has a genetic link with over 40 percent of the risk for developing depression thought to be contributed by genes. Until now, few if any regions of the genome have been shown to contribute to this risk.

Genetic research suggests that depression can run in families. The causes are the result of what we inherit from our parents. A family history of depression does not necessarily mean children or other relatives will develop major depression. However, those with a family history of depression have slightly higher chances of becoming depressed at some stage in their lives. There are several theories to explain this phenomenon. Scientists believe that genes play an important role in the development of depression and this can be supported with the help of twin and adoption studies.

Twin studies: Approximately 60 to 70 percent of depression is due to environmental factors and poor coping skills. This has been proven by looking at identical twins, which have the same genes. Genes would explain 100 percent of depression if every time one twin developed depression the other twin also developed depression. But in fact, when one twin develops depression, the other twin develops depression approximately 30 to 40 percent of the time (Kendler, Gatz, Gardener & Pedersen, 2006; Kendler & Aggen, 2001).

Recent genetic research also supports earlier studies reporting family links in depression. In depression studies, researches show if one identical twin suffers from depression or manic-depressive disorder, the other twin has a 70 percent chance of also having the illness. Even when identical twins are raised apart from each other in different environments, if one develops a depression, the other one will develop...
depression 67 percent of the time. In a careful study of 38 twins among whom one of each pair had been diagnosed as suffering from an endogenous affective disorder, Slater (1953) (as cited in Aguirre, 2008) found that there was a 57 percent concordance rate for identical twins and a 29 percent concordance rate for non-identical twins, allowing for age correction. When research is done on fraternal twins, the result is that, when one fraternal twin becomes depressed, the other also develops depression about 19 percent of the time. This is a higher rate of depression when compared with overall rates for the general public but also clearly not as high as for identical twins.

**Adoption studies:** Other studies that looked at the rate of depression among adopted children supported this finding. Depressive illnesses among adoptive family members had little effect on a child's risk of depression; however, the disorder was three times more common among adopted children whose biological relatives suffered depression. In a study both identical twins and fraternal twins were raised by the same sets of parents under similar conditions. The findings of a concordance rate was higher in identical twins than in fraternal twins, which strongly suggest that genetic factors do play an important role in the transmission of depression; any difference in outcome between the identical and fraternal twin group is probably from genetic factors (Mendals, 1970). Twin studies of unipolar depression consistently report higher concordance in monozygotic than in dizygotic twins, with some suggestion that genetics may play a stronger role in women than in men (Bierut, Heath, Bucholz, Dinwiddie & Madden, 1999; Mcguiffin, Katz, Watkins & Rutherford, 1996; Silberg, Pickles, Rutter, Hewitt & Simonoff, 1999). Several small-scale adoption studies have also supported the idea that unipolar depression has a modest heritable component (Cadoret, 1978; Wender et al., 1986).

**Environmental causes of depression**

Environmental factors (also called emotional factors) result from stressful emotional situations, such as a lack of loving parents or the death of a parent during childhood. To make it even more complicated, depression can also occur as a result of a combination of the three factors just mentioned. If one inherited a vulnerability to depression from one of his parents, his brain may react to a stressful event in a way
that causes depression. Many factors contribute to depression as the environmental factors. These are as follows:

**Trauma and stress:** Stressful life events, which overwhelm a person's ability to cope, may be a cause of depression. Early childhood trauma includes abandonment, abuse, neglect, birth trauma, death of a parent, and divorce. Such trauma permanently alters the nervous system as seen by the fact that the best predictor of depression in adulthood is the death of a child's parent before the age of eleven.

Painful experiences such as the death of a loved one, divorce, a medical illness, severe injury or losing everything in a natural disaster may be so impactful as to trigger clinical depression. Events like these take away a sense of control and cause great emotional upheaval. Some traumatic events like traumatic injury and post-traumatic stress may be a cause of more distress and depression among people (Ahman & Stalnacke, 2008; Zatzick, Russo & Katon, 2003).

**Pessimistic personality:** People who have low self-esteem and a negative outlook are at higher risk of becoming depressed. These traits may actually be caused by low-level depression (called dysthymia). Having a negative outlook on life or a pessimistic outlook on life can increase the chances of becoming depressed, because life is not as enjoyable as it should be. Someone with a pessimistic personality is often not as easy going or fun to be around. They have a negative view of the current world around them and the future does not look a lot better. Things can never go right, other people are only nice because they want something from them and there is no point in having dreams or goals because they will never happen or be achieved. Pessimistic people tend to feel that they have no real purpose in life and that there really doesn't seem to be any reason for them to try or even be around. There are people who are only a little pessimistic at times, but there are also people out there who are more consistently pessimistic about themselves, their life and the world around them. Pessimism and depressive symptoms are positively correlated (Lewis, 1993). It is these pessimistic people who are more prone to fall into serious depression, though it can sometimes be depression that can cause a person to develop a more pessimistic outlook.

**Substance abuse:** Drug and alcohol use can clearly elicit the symptoms of depression. All drugs and alcohol are brain depressants. In moderate amounts, alcohol does not lead to depression, but abusing drugs or alcohol will definitely lead to depression.
This is because they deplete your brain of serotonin and dopamine. Brain scans have shown that it can take months for your brain chemistry to return to normal after drug or alcohol abuse.

One study looked at 2,945 alcoholics. Fifteen percent were depressed before they began abusing alcohol, and that number jumped to 26 percent after they started abusing alcohol. Once they stopped drinking for an extended period, 15 percent remained depressed. In other words, alcohol almost doubles the risk of depression (Schuckit, Tipp, Bergman, Hesselbrock & Smith, 1997).

**Physical diseases:** Illness is related to depression in two ways. The stress of having a chronic illness may trigger an episode of major depression. In addition, certain illnesses for example, thyroid disorders, Addison's disease and liver disease can cause depression symptoms. Physical illness like hypertension, asthma, arthritis and rheumatism, back pain, diabetes, heart diseases and chronic bronchitis are the risk factors of depression (Patten, 2001). Serious medical conditions like heart disease, cancer, and HIV can contribute to depression (Prince, Patel & Saxena, 2007) partly because of the physical weakness and stress they bring on. Depression can make medical conditions worse, since it weakens the immune system and can make pain harder to bear. In some cases, depression can be caused by medications used to treat medical conditions.

**Loss and separation:** Death of a loved one, divorce, marital separation, or any interpersonal conflicts are major triggers for depression. During World War II there were a number of children who were separated from their mothers. It was noticed that these children became depressed after going through several stages of grief. First, the children cried strenuously for their mothers. Then the children became very agitated. Afterwards, they became despondent and still. Lastly, they became very withdrawn. This severe reaction to losing their mothers is known as anaclitic depression. This same type of reaction to separation has been observed in studies with monkeys. In these studies, the monkeys secreted higher amounts of cortisol (a stress hormone) during the earlier stages of grief. It was found that the more cortisol that was released into the blood, the more intense the monkey’s depression became later on. In approximately one-half of all depressed humans there are high levels of cortisol in the blood (“Environmental causes,” 2013).
Social isolation: Many studies show identify isolation as a contributing risk factor for depression. For example many of the symptoms caused by long-term isolation resemble those seen in depression and anxiety disorders (Malick, 1979; Fone & Porkess, 2008). Furthermore, long-term isolation of male mice is known to induce offensive and aggressive behavior, such as attacks (Malick, 1979; Valzelli, 1985).

Poor nutrition: A poor diet can contribute to depression in several ways. A variety of vitamin and mineral deficiencies are known to cause symptoms of depression. Researchers have also found that diets either low in omega-3 fatty acids or with an imbalanced ratio of omega-6 to omega-3 are associated with increased rates of depression. In addition, depressive symptoms are associated with less frequent consumption of fruits/vegetables and more frequent consumption of sweets/fast foods (Mikolajczyk, Ansari & Maxwell, 2009). Higher depressive symptoms are related to lower levels of healthy nutrition and higher levels of unhealthy nutrition (Baker, Kirkham & Jensen, 2013).

Now we will discuss the basic concept of ‘loneliness’ which is one of the variables used to study in the proposed study.

LONELINESS: Loneliness is a common problem (Wiss, 1973) and an important public health issue, predicting low quality of life among older adults. A sense of loneliness is associated with an individual’s evaluation of his or her overall level of social interaction and illustrates a deficit between the actual and desired quality and quantity of social engagement (Victor, Scambler, Bowling & Bond, 2005). It has been estimated that 25% of the world’s population experiences episodes of loneliness on a regular basis (Miedema & Tatemichi, 2003), although its prevalence in the elderly population varied from 7% (Victor et al., 2005) to 49% (Holmén, Ericsson & Winblad, 1994). Moreover, almost 60% of people age 70 years and older experience some type of loneliness in a study reported in the United States (Davis, 2005). It is the state of being unfrequented by human beings. It is an unpleasant feeling in which a person experiences a strong sense of emptiness and solitude resulting from inadequate levels of social relationships. Loneliness has also been described as social pain - a psychological mechanism meant to alert an individual of isolation and motivate her/him to seek social connections (Cacioppo & Patrick, 2008).
Taking into account explicitly the values, norms and standards that prevail in a person's personal life and in the society in which he or she is involved, a definition within the cognitive approach which conceptualizes loneliness as a multidimensional phenomenon, has been developed by de Jong Gierveld (1987, 1989):

“Loneliness is a situation experienced by the individual as one where there is an unpleasant or inadmissible lack of (quality of) certain relationships. This includes situations in which the number of existing relationships is smaller and is considered desirable or admissible, as well as situations where the intimacy one wishes for has not been realized. Thus loneliness is seen to involve the manner in which the person perceives, experiences, and evaluates his or her isolation and lack of communication with other people”.

De Jong Gierveld considered Loneliness as the experience of a lag between realized and desired interpersonal relationships as disagreeable or unacceptable, particularly when the person perceives a personal inability to realize the desired interpersonal relationships within a reasonable period of time (de Jong Gierveld, 1978, p.221).

According to Sullivan, loneliness is the exceedingly unpleasant and driving experience connected with inadequate discharge of the need for human intimacy, for interpersonal intimacy (Sullivan, 1953, p.290). Intense loneliness may be manifested by diminished feelings of self-worth, a lack of confidence in interpersonal relationships, and disrupted decision-making abilities.

According to Perlman and Peplau (1982, 1981 p.31) “Loneliness is the unpleasant experience that occurs when a person’s network of social relationships is deficient in some important way, either quantitatively or qualitatively”.

This definition treats loneliness as a unidimensional concept that varies primarily in its experienced intensity. A person might feel lonely when no one else is present, when a particular person is absent, when interaction partners treat him or she differently than what is desired, or when aspects of the situation make that person feel alienated from those with whom he or she could develop a satisfying relationship.

Loneliness has been defined in a variety of ways. However, virtually all definitions share three main points of agreement. First, loneliness is a subjective
experience and is not synonymous with objective social isolation. It has created the word "loneliness" to express the pain of being alone, and it has created the word "solitude" to express the glory of being alone."

**Work on Loneliness in History**

Although the nature and purpose of loneliness have long been discussed in philosophy, theology, and literature, the scientific study of loneliness has a relatively short history. The first scientific paper on loneliness can be traced back just five decades to the now classic psychoanalytic treatise by Frieda Fromm-Reichmann (1959), and phenomenological and existential perspectives followed soon afterwards (Moustakas, 1961; Rogers, 1973). The earliest psychological discussions of loneliness were influenced by the psychoanalytic tradition though Freud himself did not directly address the problem of loneliness. Perhaps the first work on loneliness published in English was a paper by Zilboorg that appeared in 1938. He linked loneliness to personality traits of narcissism, egocentrism and hostility; he believed that their origins were in faulty parenting during infancy.

Fifteen years later, Sullivan (1953) gave loneliness a place of prominence in his theory of personality development. He wrote that in preadolescence, a powerful human need for intimacy first emerges, making teenagers especially vulnerable to the driving force of loneliness. About the same time, Fromm-Reichmann (1959) published an influential paper on loneliness, based on her clinical work with schizophrenics. She too, emphasized that loneliness is a distressing and powerful experience, often traceable to childhood experiences in the family. A common theme in the works of this period was that loneliness is a painful subjective experience, distinct from the objective state of being alone. In the 1960s, 64 new English-language publications on loneliness appeared. Some works, such as those by Carl Rogers (1961, 1973) continued to draw primarily on clinical observations. Others such as *Lonely Crowd* by Riesman, Glazer & Denny (1961) called popular attention to the possible impact of social changes on personal relations and loneliness. Also evident in the 1960s was the beginning of empirical research on loneliness. For example, several sociological surveys investigated loneliness and social isolation among older adults both in the United States and in Europe (e.g. Blau, 1961; Donson
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In the 1970s, work on loneliness expanded rapidly, spurred by Robert Weiss's book, *Loneliness: Experience & Emotional & Social Isolation* (1973). Weiss offered an integrationist view of loneliness as stemming both from personal vulnerabilities and situational constraints on relationships. More recently, loneliness research has taken many directions. Several researchers have developed and validated instruments to assess loneliness (see review by Russell, 1982). In part because of the availability of these loneliness scales, numerous studies have begun to examine the personal characteristics and social behaviors of lonely people (see chapter by Jones in this volume). One indication that work on loneliness has joined "the establishment" is that NIMH has sponsored two conferences on loneliness, one in 1979 (see Peplau & Perlman, 1982) and a second in 1982 (see Peplau & Goldston, 1982). Today, research on loneliness is well-established.

**Theories of loneliness**

**Attachment theory**

The work of John Bowlby on attachment bonds (Bowlby, 1973) heralds the beginning of theoretical conceptualizations of loneliness. Robert S. Weiss (1973) delineated an attachment theory of loneliness in which deficiencies in social relationships serving specific functions (e.g. attachment, social integration, and nurturance) were posited to contribute to feelings of loneliness. Weiss described loneliness as “a chronic distress without redeeming features” (Weiss, 1973, p.15) and he further distinguished between social loneliness (e.g., lack of social integration), and emotional loneliness (e.g., absence of a reliable attachment figure). In his view, emotional loneliness is based on the absence of an intimate attachment figure, such as might be provided for children by their parents or for adults by a spouse or intimate friend. Social loneliness occurs when a person lacks a sense of social connectedness or community that might be provided by having a network of friends and associates at work or school. Weiss believes that emotional loneliness is the more serious condition than the social loneliness.

Young (1982) proposed a distinction among three types of loneliness. Transient or everyday loneliness refers to brief and occasional lonely moods.
Situational loneliness occurs when a person has had satisfying relationships until some specific changes occur, such as moving to a new town or getting divorced. Situational loneliness can be severely distressing, but does not invariably last for long time periods. When a person has lacked satisfying social relationships for a period of two years or more, Young classifies them as chronically lonely. This theoretical perspective, also called the "social needs" approach, continues to motivate loneliness research (Dykstra & Fokkema, 2007). Researches also show that persons with a very small number of relationships are socially isolated but they are not necessarily lonely, and vice versa (Townsend & Tunstall, 1973; Wenger, Davies, Shatahmasebi & Scott, 1996).

Additionally, the social norms and values of a society concerning an optimal set of relationships may influence the risk of becoming lonely (Kaufmann, 1993; Jylha & Jokela, 1990; Waters, Heikkinen & Dontas 1989; Stessman et al., 1996; Vlassoff, 1990; Schumaker, Shea, Monfries & Groth- Marnat, 1993) as well as the personal capacities to adjust one's norms and values concerning an optimal set of relationships to changing circumstances (Dykstra 1990; de Jong Gierveld & Dykstra, 1993; Bondevik & Skogstad, 1996). So, people can react to a situation of relational deficits in different ways, for example by resigning themselves to it or by attempting to change it.

In general, it is believed that each type of relationship fulfills specific functions for the alleviation of loneliness (Litwak & Szelenyi, 1969). However, it has to be underlined that the exchange of emotional and/or instrumental support within the realm of the network is a crucial indicator of the extent to which the network functions as a real cohesive mediating structure. The availability of a diversity of relationships, weakly and strongly supportive, proves to be important in reducing the likelihood of loneliness. More supportive relationships indicate less loneliness (Tilburg, 1990). Sometimes, emotional support is decisive; in other circumstances instrumental types of support are decisive (Dykstra, 1993). We can conclude from exchange theories (Blau, 1964; Homans, 1961) that people in a relationship will try to preserve the support equilibrium; relationships in which either too much or too little support is given run the risk of being terminated (Tilburg, Broese & Thomese, 1995) although, particularly in the case of older people, reciprocity deficits do not simply
lead to a termination of relationships and to loneliness (Fitzpatrick, Newman, Lamb & Shipley, 1988; Morgan, Schuster & Butler, 1991).

Social Skill Deficits and Personality Traits Theory

A second conceptual approach to loneliness has focused on social skill deficits and personality traits that impair the formation and maintenance of social relationships. The subjective evaluation of the network is the intermediating factor between the descriptive, objective characteristics of the network and loneliness. It is clear that some people are susceptible to loneliness while some not. Research in the social skills area has shown that loneliness is associated with more self-focus, poorer partner attention skills, a lack of self-disclosure to friends, especially among females and less participation in organized groups, especially among males (Marangoni & Ickes, 1989). Personality research has shown that loneliness is associated with depressive symptoms, shyness, neuroticism, and low self-esteem, optimism, conscientiousness and agreeableness (Marangoni & Ickes, 1989). Good evidence links loneliness to shyness, introversion, lower affilicitive tendencies and a lack of assertiveness, external locus of control, greater self-consciousness and lower self-esteem (Peplau & Perlman, 1982). Early studies suggested that behavioural and personality correlates of loneliness tend to be true only for chronically lonely individuals, not for "state-lonely" individuals whose loneliness is adequately explained by potent situational factors (e.g. widowhood, geographical relocation) (Marangoni & Ickes, 1989). There is also evidence that some lonely people may have faulty social skills. Jones (1982), for example suggests that lonely people are often self-focused and nonresponsive in their interactions with others. Presumably these factors affect loneliness because they make it difficult for people to sustain satisfying relationships or to initiate new relationships to replace ones that have been lost (e.g., by moving or divorce).

More recently however, loneliness has been observed to operate like a trait even when induced in an acute fashion. Under hypnotic suggestion, young adults were made to feel lonely and then socially connected (or vice versa, in a counterbalanced order) by recalling a time when they felt rejected and like they didn’t belong, or accepted and like they belonged. Measures of affect, social factors, and even personality traits mirrored and tracked the acute changes in loneliness induced by the
hypnotic manipulation. Relative to their baseline levels of loneliness, individuals made to feel lonely reported significantly more negative mood and lower self-esteem, optimism, social skills, social support, sociability, extraversion, and agreeableness, and greater shyness, anxiety, anger, fear of negative evaluation, and neuroticism (Cacioppo et al., 2006). These results place loneliness as a potential causal factor in characteristics such as self-esteem, depressive symptoms, shyness, and so forth.

**Cognitive discrepancy theory**

A third conceptual approach to loneliness is represented by cognitive discrepancy theory, which specifies loneliness as the consequence of altered social perceptions and attributions. This describes how loneliness is conceived and measured; how loneliness is mentally represented; how loneliness influences thoughts, feelings and behaviors and consequences of loneliness for health and well-being. Specifically, loneliness is defined as the distress that occurs when one’s social relationships are perceived as being less satisfying than what is desired (Peplau & Perlman, 1982).

From a cognitive discrepancy perspective, it is clear that loneliness is not synonymous with being alone, nor does being with others guarantee protection from feelings of loneliness (Peplau & Perlman, 1982). Rather, discrepancies between ideal and perceived interpersonal relationships produce and maintain feelings of loneliness. The relationship between objective social isolation and subjective experiences of loneliness is mediated by factors such as the characteristics of the relationships that are available and of the relationships that are not (or no longer) available; the saliency of the relationships that are missed; the time perspective, and the possibilities one sees to upgrade and enlarge one’s network of relationships personality characteristics such as shyness, social skills and assertiveness and the concept of self (de Jong Gierveld, 1998).

**Aversive theory**

A fourth approach derives from an evolutionary analysis of loneliness, with an emphasis on inclusive fitness (Cacioppo et al., 2006). This approach calls into question the conceptualization of loneliness as an aversive condition without redeeming features but instead conceptualizes loneliness as an aversive condition that promotes inclusive fitness by signaling ruptures in social connections that motivate
the repair or replacement of these connections. An evolutionary conceptualization of loneliness holds that the aversive feelings are adaptive because they motivate the repair or replacement of social connections. *Homo sapiens*, however, are born to the longest period of abject dependency of any species. Simple reproduction, therefore, is not sufficient to ensure that one’s genes make it into the gene pool. For one’s genes to make it to the gene pool, the offspring must survive to reproduce. Moreover, social connections and the behaviors they engender (e.g., cooperation, altruism, alliances) enhance the survival and reproduction of those involved, increasing inclusive fitness. Adoption and twin studies among children and adults have confirmed that loneliness has a sizeable heritable component (Boomsma, Willemsen, Dolan, Hawkley & Cacioppo, 2005; McGuire & Clifford, 2000).

Other than these theories loneliness can be caused due to childhood experiences, demographic factors like age and marital status, and characteristics of the environment. In one study (Brennan & Auslander, 1979), for example, lonely teenagers reported greater parental rejection and less encouragement to strive for popularity than did non lonely teenagers. Another finding is that lonely people are more likely to be the children of divorce (Shaver & Rubenstein, 1980). Loneliness is common among the widowed but, as might be expected, seems to decline over time (e.g., Lopata, Heinemann & Baum, 1982).

**OPTIMISM:** The word optimism is originally derived from the Latin word ‘optimum’ meaning "best". Optimism is all about looking at the bright side, seeing a challenge and knowing everything is going to turn out exactly as it should. Optimism can be conceptualized as a tendency to expect the best possible outcome or dwell on the most hopeful aspects of a situation.

The oxford dictionary defines optimism as having "hopefulness and confidence about the future or successful outcome of something; a tendency to take a favorable or hopeful view."

Anthropologist Lionel Tiger (1979) defines optimism as “a mood or attitude associated with an expectation about the social or material future—one which the
evaluator regards as socially desirable, to his [or her] advantage, or for his [or her] pleasure”.

Optimism has many facets which have been investigated through psychological research; however critics suggest that many of the lines of enquiry have been ‘surprisingly uniform, so much so that an optimism bandwagon has been created, within psychology as well as the general public’. Psychologist Rewena Morrow (2006) defines optimism in such a way:

“A mood or attitude associated with an expectation about the social or material future – one which the evaluator regards as socially desirable, to his or her advantage, or for his or her pleasure.”

Optimism in Early Times

There are examples from history, philosophy, politics, literature, film, music and popular culture where optimism serves as the principal theme. In the first half of the twentieth century, prominent psychologists such as Sigmund Freud and the developmental psychologist Erikson established the idea of optimism as an innate human characteristic. They also argued, however, that optimism was in essence a human characteristic to be controlled and guarded against because it encouraged the illusion of positive outcomes that could not always be demonstrated in real life. Being optimistic, they insisted, was dangerous for one’s mental well-being because it encouraged a skewed perception of reality. Following this idea psychologists of the early twentieth century initially discouraged ‘looking on the bright side’ in favor of a more measured, if slightly gloomier and pragmatic outlook on the world. Similarly, therapists encouraged patients to think realistically, shunning the idea that optimistic thinking in itself could lead to positive outcomes.

In the second half of the twentieth century, in contrast, an increasingly large body of psychological research related to optimism and mental health began to move away from this negative perspective, instead focusing on the positive impact of optimism for well-being in many different aspects of life – from mental and physical health to job satisfaction and emotional balance. Psychologists began to argue that people are naturally inclined to think about life in a positive way, regardless of the objective evidence that might suggest otherwise (Weinstein, 1980). This, they
suggested, was essentially a ‘good thing’ because it motivated us to achieve positive outcomes. We continue to think positively, for example, about the idea of marriage, despite the increasing rate of divorce. Similarly, people generally underplay the likelihood of contracting particular diseases despite the statistical probability of this occurring. In a seminal study of attitudes among smokers conducted by the psychologist Neil Weinstein, for example, participants regularly considered themselves less likely than the average smoker to contract lung cancer, in spite of evidence to the contrary (Weinstein, Marcus & Moser, 2005).

**Optimism and pessimism**

The term optimism is a relatively recent arrival on the historical scene, as is its cousin pessimism (Sicinski, 1972). In the 1700s, Leibniz characterized optimism as a mode of thinking, and Voltaire popularized the term in his 1759 novel Candide, which was highly critical of the shallowness of an optimistic perspective. Interesting to us, pessimism appeared fully a century later, when it was independently introduced by Schopenhauer and Coleridge (Shukla, 2010). Optimism as discussed by Leibniz was cognitive in its emphasis, reflecting a reasoned judgment that good would predominate over evil, even if goodness were associated with suffering. In contrast, pessimism as discussed by Schopenhauer had an emotional referent: The pessimistic individual was one for whom suffering would outweigh happiness.

The question arises whether optimism and pessimism are two separate poles of a single construct or whether optimism and pessimism are states that can live together in the same people. Lightsey (1996) reconsidered the original study by Scheier and Carver (1985) and observed that also in the original factor analysis there were two factors incorporating both positive and negative items. However, the one-dimensional version of optimism has adequate statistical properties and expected correlations with other constructs as depression, hopelessness, self-esteem, stress and locus of control and there is not enough discriminate validity for justifying two dimensions. On the contrary, according to Chang & Mc Bride- Change (1996), Optimism and Pessimism are two distinct traits correlated to each other.

Another question to our interest is related to the fact whether optimism is a stable characteristic of the individual, that is, a trait (Scheier & Carver, 1985), or whether it is changeable condition that is a state (Seligman, 1975). Shifren and Hooker (1995) examined a little group of caregivers (N = 30) of spouses with
probable Alzheimer's disease. They found both stability and change in Optimism. The caregivers showed variability in optimism over time and their state optimism could be differentiated from their affect. However, most individuals did not show lead-lag relationships between optimism and affect over time. Lewis, Dember, Scheff & Radenhausen (1995) examined the effects of different mood-induction procedures. Their findings suggested that an optimistic or pessimistic inclination is not impervious to momentary mood states, at least for women, thus somewhat reducing its temporal stability. Also according to Gillham & Reivich (2004) who focused on the explanatory styles and attributions, optimism can be implanted later in life through teaching. Nevertheless for Scheier & carver (1985, 1987) optimism is a characteristic trait or a disposition. Dispositional optimism has been described as the general expectation that good things will occur and bad things will not (Carver, Scheier & Lopez, 2003).

Researchers sometimes operationalize the term optimism differently depending on their research, however. Peterson (2000) reviewed some of the contemporary work on optimism, noting that most discussions of optimism take one of two forms. In the first, optimism is posited as an inherent part of human nature, either to be praised or decried. This tack on optimism was thoroughly reviewed by Tiger (1979). The second approach to optimism views it as an individual difference: a characteristic that people possess to varying degrees. These two approaches can be compatible. Our human nature provides baseline optimism, of which individuals show more versus less, and our experiences influence the degree to which we are optimistic or pessimistic. At present, the well-known approaches to optimism and pessimism as individual differences include lines of research into (a) dispositional optimism and (b) explanatory style undertaken. Such approaches suggest a logical basis for some of the ways in which optimism and pessimism influence people's behavior and emotions.

**Theories of Optimism**

**Expectancy – value model or dispositional optimism**

Expectancy-value model begins with the idea that behavior is aimed at attaining desired goals (Carver & Scheier, 1998). Goals are actions, end-states, or values that people see as being either desirable or undesirable. People try to fit their behavior to what they see as desirable. They try to stay away from what they see as
undesirable. Being optimistic ultimately means one expects the best possible outcome from any given situation. Optimist is the person one who is disposed for the best (Scheier & Carver, 1985). Optimist functions effectively with even a slightly enhanced view of themselves no ignorance or delusion, just a polished reality. Optimist will never fail by his failure. They will rather, look to the next challenges and push on. Genuine optimist is not in denial, they will rather look for a healthy avenue to express and work through their real feelings (Joshi & Tomar, 2010). Optimists generally believe that people and events are inherently good, so that most situations work out in the end for the best. This is usually referred in psychology as dispositional optimism. According to this theoretical orientation, unless there is a valued goal, no action occurs. The other core concept is expectancies, a sense of confidence or doubt about attaining the goal. If a person lacks confidence, again there is no action. Only if they have enough confidence do people engage (and remain engaged) in goal-directed effort. These ideas apply to specific values and focused confidence; they also apply to optimism and pessimism (Scheier, Carver & Bridges, 2001).

From the principles of dispositional approach of optimism come many predictions about optimists and pessimists. When confronting a challenge, optimists should be confident and persistent, even if progress is difficult and slow. Pessimism is the general tendency to expect always bad outcomes. A pessimist is the person who always looks to the dark side of the thing (Carver & Scheier, 1985). Pessimism, from the Latin word pessimus (worst), is the decision to evaluate, perceive and view life in a generally negative light. Value judgment may vary dramatically between individuals, even when judgments of fact are undisputed. The most common example of this phenomenon is the “Is the glass half empty or half full?” situation. The degree in which situations like these are evaluated as something good or something bad can be described in terms of one’s optimism or pessimism respectively (Joshi & Tomar, 2010) Pessimists should be more doubtful and hesitant. Adversity should even exaggerate this difference. Optimists believe adversity can be handled successfully, pessimists expect disaster. This can lead to differences in such domains as actions relating to health risks, taking precautions in risky circumstances, and persistence in trying to overcome health threats. It can also lead to differences in what coping responses people deploy when confronting a threat such as a cancer diagnosis (Carver
et al., 1993; Stanton & Snider, 1993). Optimists expect good outcomes; they are likely to experience a more positive mix of feelings. Because pessimists expect bad outcomes, they should experience more negative feelings like anxiety, sadness and despair. A good deal of research has found evidence of such emotional differences (Scheier et al., 2001).

**Explanatory or attribution model of optimism**

Martin Seligman and his fellow researchers define optimism in terms of explanatory style, which is based on the way one explains life events or he or she explains the causes of bad events (Buchanan & Seligman, 1995). Those who explain bad events in a circumscribed way, with external, unstable and specific causes, are described as optimistic, whereas those who favor internal, stable, and global causes are described as pessimistic. Seligman found that pessimistic and optimistic people have distinct ways they described the good things and the bad things in their lives. The optimist describes good things as permanent and pervasive and bad things as temporary and narrowly focused; while pessimist describes good things as temporary and narrowly focused and bad things as permanent and pervasive. The pessimistic baseball player described his lack of skill (a bad thing) as a permanent condition and then went on to describe this condition as pervasive throughout all other sports he may attempt. The mother saw the struggles of her son (a bad thing) as a permanent condition and applied this condition to her entire work as a mother. Interestingly when good things happen to pessimistic people, they tend to describe them as temporary and very narrowly focused. For example, if the young baseball player were to get a base hit (a good thing) in an important game, as a pessimist, he would tend to see that base hit as a temporary, passing fluke that would surely not be repeated.

There are 3 dimensions in explanatory style: internality (“it’s mine”) vs. externality; stability (“it’s going to last forever”) vs. instability; and globalism (“it’s going to undermine everything”) vs. specificity. These dimensions capture tendencies toward self-blame, fatalism, and catastrophic thinking. The notion of explanatory style emerged from the attributional reformulation of the learned helplessness model (Abramson, Seligman, & Teasdale, 1978). Briefly, the original helplessness model proposed that following experience with uncontrollable aversive events, animals and
people become helpless, passive and unresponsive presumably because they have “learned” that there is no contingency between actions and outcomes (Maier & Seligman, 1976). This learning is represented cognitively as a generalized expectancy that future outcomes will be unrelated to outcomes. It is this generalized expectation of response-outcome independence that produces later helplessness. During the past 25 years, studies have shown that individuals who profess pessimistic explanations for life events have poorer physical health (Peterson, Seligman & Vaillant, 1988; Weary, Stanley & Harvey, 1989), prone to depression (Seligman, Abramson, Semmel & Baeyer, 1979) and are frequent users of the medical and mental health care delivery systems (Peterson, 1988).

The explanatory approach to optimism relies on the assumption that expectancies for the future derive from people’s view of the causes for events in the past (Seligman, 1991). If a person’s explanations for bad outcomes in the past emphasize causes that are stable, the person will expect more bad outcomes in that domain, because the cause is relatively permanent and thus likely to remain in force. If attributions for past bad outcomes emphasize causes that are unstable, the outlook for the future may be brighter, because the cause may no longer be in force. If explanations for bad outcomes are global (apply across aspects of life), expectancies for the future in many domains will be for bad outcomes, because the causal forces are at work everywhere. If the explanations are specific, the outlook for other areas of life may be brighter, because the causes don’t apply. It is often assumed that people have “explanatory styles,” which bear on the person’s whole life space. The theory behind explanatory style (Seligman, 1991) holds that optimism and pessimism are defined by patterns of explanation for bad outcomes that are unstable and specific versus stable and global, respectively.

**Optimistic bias**

The concept of optimism bias was first invoked to explain risk assessment in the field of health psychology. Optimism bias is defined as the tendency to overestimate the likelihood of favorable future outcomes and underestimate the likelihood of unfavorable future outcomes (Irwin, 1953; Weinstein, 1980; Slovic, Fischhoff & Lichtenstein, 1982; Slovic, 2000). It is commonly defined as the mistaken belief that one’s chances of experiencing a negative event are lower (or a positive
event higher) than that of one's peers. It is the tendency to view oneself as invulnerable as (or less likely than others) to experiencing negative life events. This personal fable (Elkind, 1967) also involves the tendency to overestimate one's probability of experiencing positive life events. For example, in the area of health, research has shown that more than half of surveyed individuals perceive that they are less likely than others to be afflicted with such health outcomes as drug addiction, cancer, tooth decay, and auto injury. Harris and Guten (1979) found that only a small proportion of the subjects in their study reported to be at a higher risk for a given disease while a much larger proportion assessed their risk as being lower.

Optimistic bias is one of several kinds of positive illusion to which people are generally susceptible. The bias was first demonstrated by Weinstein (1980) who reported that a majority of college students believed their chances of events such as divorce and having a drinking problem to be lower than that of other students, and their chances of events such as owning their own home and living past 80 years of age to be higher than that of other students. Because a majority of individuals in a group cannot be above (or below) the mean unless the distribution is highly skewed, these findings represented a bias at the level of the group. Other terms representing the same construct include "unrealistic optimism," "illusion of invulnerability," "illusion of unique invulnerability," "optimism bias," and "personal fable."

Findings from the focus groups and the national poll data indicate that British people are generally optimistic, although most consider their optimism to be tempered by a degree of pessimism or realism – what we define here as ‘situational’ or ‘concrete’ optimism, as opposed to ‘unabashed’ optimism. From the poll data, 21% of people see themselves as being generally optimistic with a further 54% being generally optimistic but also feeling pessimistic about some things. This contrasts markedly with the 6% who felt generally pessimistic and the 10% who were pessimistic but also optimistic about some things. Women were just slightly more likely than men to define themselves as optimists (Social Issues Research Center, 2009).

Some of the optimistic bias may be attributed to cognitive factors. Reyna & Farley (2006) identify an increase in cognitive illusions with age due to an increased reliance on gist based thinking which is founded on social knowledge and experience.
that increases with age (Reyna & Adams, 2003). Research also finds a positivity effect wherein older adults pay more attention to and remember more positive information as opposed to negative information than do young adults (Mather & Carstensen, 2003). Thus it may be highly relevant to retirement planning especially when emotionality is involved. Moreover, other illusions appear to contribute to compromised retirement decision-making.

When comparing their risk to that of others, people are egocentric in that they focus more on their own risk factors than on those of the peers to whom they are comparing (Chambers & Windschitl, 2004); indeed, reducing such egocentrism seems to dampen the bias (Weinstein, 1983), and this egocentrism may lead people to be unrealistically pessimistic about rare positive events or common negative events (e.g. Chambers, Windschitl & Suls, 2003; Kruger & Burrus, 2004). People also seem to focus on base-rate information rather than individual risk factors when judging the risk of their peers (Klar, Medding & Sarel, 1996), and they may come to see any individual member of a group as discrepant because they compare individuals to general rather than local standards (Klar, 2002).

Diseases that are related to factors, or diseases that show an increased perceived controllability, increase the optimistic bias in the perception of risk for that disease (Weinstein, 1982, 1984, 1987). This may actually lead some to engage in health-compromising behaviors including smoking, eating a high fat diet, unsafe sex, etc. Kunda (1990) suggested that engaging in the previously mentioned behaviors with the knowledge that it may lead to a controllable disease constitutes a threat to one’s intelligence. In order to preserve self-esteem, one is more motivated to assess his/her risk for the possible harmful outcomes of this behavior as being low.

There are also reasons to believe that optimistic biases derive from motivational causes such as a need to protect self-esteem because people engage in numerous strategies to protect these and related beliefs when challenged (e.g., Boney-McCoy, Gibbons & Gerrard, 1999; Croyle, Sun & Louie 1993; Gerrard, Gibbons, Benthin & Hessling 1996; Klein & Weinstein, 1997; Kunda, 1987), making optimistically biased judgments highly resistant to change (Weinstein & Klein, 1995). Emotion also plays a role; for example, people are more likely to be optimistically
biased when angry and less likely when fearful or sad (Lerner & Keltner, 2001; Salovey & Birnbaum, 1989).

Optimism bias is enhanced by ignorance and by confirmation bias. Krueger & Dunning (1999) find that most students scoring at the low end of tests believe they had scored in the top half. The students simply do not know enough to realize they do not know enough. "Ignorance more freely begets confidence than doe's knowledge" (Darwin, 1871, p.3). We compound the problem of ignorance by seeking confirming evidence (confirmation bias) while ignoring evidence to the contrary (Baron, 1985). However, Armor & Taylor (2002) do caution that attempting to reduce optimistic bias in decision-making to increase accuracy may be counterproductive by undermining performance.

Another factor contributing to the optimistic bias is the nature of the comparison other. Studies have shown that when subjects are asked to compare their futures to the future of the "typical other person", "the average other", "(most) people they know", or "other students at the same university and same sex", the optimistic bias is prevalent. However, when comparing themselves with a good friend instead of "the average other," subjects do not display unrealistic optimism (Perloff & Fetzer, 1986). Perhaps the reason for this is that comparing oneself to good friends implies a comparison of individual to individual instead of a group as is the case with "the typical other person". This can be explained by the "person positivity bias," which says that people value the individuals of a group more positively over the group as a whole (Sears, 1983). Hoorens and Bruunk (1993) tested both of these factors and found that subjects unrealistic optimism was high when compared to a random other or average other but diminished when comparing themselves to their best friends.

Dynamic optimism

Another aspect of optimism is the dynamic optimism. Dynamic optimism is an active, empowering, constructive attitude that creates conditions for success by focusing and acting on possibilities and opportunities. To understand Dynamic Optimism deeply and to apply it to expanding our lives, we need to become aware of its diverse aspects—the personal characteristics of a dynamic optimist and the kinds of powerful thinking patterns such a person displays. The dynamic optimist
both interprets experience positively, and influences outcomes positively (More, 1998). There are twelve key characteristics of dynamic optimism.

**Interpreting Experiences Positively**

1. **Selective Focus:** Emphasizing the enjoyable, constructive, open aspects of life.
2. **Refraining from Complaining:** Avoiding pointless complaining and whining about one’s difficulties. Taking the world as it is and not complaining that life isn’t fair.
3. **Questioning Limits:** A constructive skepticism that challenges the limiting beliefs held by us, our associates, and our society. It is a fundamental creative openness to possibilities.
4. **Sense of Abundance:** Feeling free to do what you want, rather than feeling compelled by circumstances or people, recognizing the world to be full of opportunities being for things, not against things.
5. **Humor:** Seeing one’s own shortcomings with a sense of humor. Allowing healthy, good-natured humor to reveal new perspectives and combat dogmatic thinking.

**Influencing Outcome Positively**

6. **Rational:** Using reason rather than being led by fears and desires. Objectively assessing situations and taking action based on understanding reality apart from our wishes.
7. **Self-Improving:** Optimists see the self as a process and seek continual improvement. Their drive to improve is not pushed by fear but pulled by inspiring self-image.
8. **Experimental:** Frequently trying fresh approaches, staying out of ruts, actively seeking more effective ways of achieving goals, and being willing to take calculated risks.
9. **Self-Confident:** Believing that we can bring about good things, meaning fundamental conviction of competence in living.
(10) Self-Worth: Believing one is worthy of success and happiness. Without this, attempts to improve one’s life will lack motivation.

(11) Personal Responsibility: Taking charge and creating the conditions for success. Being aware of how we determine our chances of success. This crucially involves integrity: living according to one’s values.

(12) Selecting Environment: Being attracted to positive people and situations. It is seeking out those who will support and inspire, not discourage, distract, and undermine.

These twelve characteristics of effective optimists give us specific ways of turning the abstract idea of dynamic optimism into actions (More, 1998).

**LIFE SATISFACTION:** Psychology has long focused on the study of psychopathological conditions. In contrast, positive psychologists have argued for the complementary study of wellness, including the nature and development of key human strengths (Seligman & Csikzentmihalyi, 2000). One personal strength that merits study among children, adolescents and old people is life satisfaction, which represents peoples’ subjective judgments of the quality of their lives as a whole or quality of specific domains within their lives.

‘Satisfaction’ is a Latin word that means to make or do enough. Satisfaction with one’s life implies contentment with or acceptance of one’s life circumstances, or the fulfillment of one’s wants and needs for one’s life as a whole. In essence, life satisfaction is a subjective assessment of the quality of one’s life. Because it is inherently an evaluation, judgments of life satisfaction have a large cognitive component (Sousa & Lyubomirsky, 2001). Life satisfaction is an overall assessment of feelings and attitudes about one’s life at a particular point in time ranging from negative to positive. It is one of three major indicators of well-being: life satisfaction, positive effect and negative affect (Diener, 1984).

Life satisfaction has been defined as a person’s subjective, global evaluation of the positivity of her/his life as a whole or with specific life domains (e.g. family life, school experiences) (Diener, Suh, Lucas & Smith, 1999). Diener et al., (1999)
also include the following under life satisfaction: desire to change one's life; satisfaction with past; satisfaction with future; and significant other's views of one's life. Related terms in the literature include happiness (sometimes used interchangeably with life satisfaction), quality of life, and (subjective or psychological) well-being (a broader term than life satisfaction).

Life satisfaction research with adults has shown that positive levels of life satisfaction are not just an epiphenomenon, that is a simple by-product of positive life experiences, personality characteristics, and so forth. Rather, many benefits accrue to those who typically experience high levels of life satisfaction. These benefits include positive outcomes in intrapersonal, interpersonal, vocational, health and educational areas (King, Lyubomirsky & Diener, 2003). Low levels of life satisfaction are similarly predictive of a variety of negative outcomes, including mental and physical health problems (Frisch, 2000).

Factors influencing life satisfaction

Life satisfaction reflects our assessments of many different facets of our lives. Factors that influence life satisfaction include 'socio demographic factors' and 'personality traits'. Demographic factors include characteristics such as gender, education, age, working status, social relationships; economic status etc. personality traits include self-esteem, physical health, locus of control, mental health, assertiveness, empathy, extraversion and openness to experiences etc.

Socio-demographic factors

The vast majority of research on life satisfaction investigates the extent to which various demographic variables predict life satisfaction. However, because researchers are not able to perform true experiments by randomly assigning participants to demographic groups (e.g. gender, income, age), all of this research has necessarily been correlation. Much of the work has focused on the “objective” determinants of life satisfaction that is, the extent to which satisfaction is related to the environment, both imposed (e.g. culture) and relatively controllable (e.g. income, occupation, education, marriage), as well as to specific aspects of persons (e.g. gender, age).
Chapter 1

Introduction

Age: Life satisfaction is generally assumed and expected to decline in older age, most notably as health conditions deteriorate. In reality, the general finding of the large body of literature on the relationship between age and life satisfaction is that there is no age-related decline in life satisfaction (Larson, 1978; Herzog & Rodgers, 1981; Horley & Lavery, 1995; Diener & Suh, 1997). Numerous studies have provided evidence that, contrary to common expectations, life satisfaction does not decline with age. For example, in a cross-cultural study conducted in 40 different nations and with nearly 6,000 participants, Diener & Suh (1998) found that reported life satisfaction generally remained stable throughout the life span, showing just a slight increasing trend between the ages of 20 and 80 years.

Based on German Socio-Economic Panel (GSOEP) data for individuals born between 1924 and 1936 (i.e. respondents who reached 60 within the measurement period of 1984 to 1999), Schilling (2005) finds that, in general, there is an overlay of age and cohort related decline in the trajectories of life satisfaction for individuals in young-old age and that once cohort effects are controlled for, a decline in life satisfaction is observable across old age. Likewise, drawing on data from the Survey of Health and Living Status of the Elderly in Taiwan, Chen’s (2001) study of the aging process and life satisfaction concludes that not only the age effect but also cohort experiences have an impact on life satisfaction. This finding is, to a certain extent, supported by Mroczek and Spiro’s (2005) analysis (based on longitudinal data from the Veterans Affairs Normative Aging Study) of age and cohort effects among male war veterans, which shows not only that life satisfaction peaks at around 65 years but also that impending death is associated with a decline in life satisfaction that is not attributable to (self-rated) physical Health.

Culture: Current research shows that members of individualist cultures (e.g. U.S., England and Australia) report greater satisfaction relative to members of collectivist cultures (e.g. China, Japan and India). Life satisfaction also appears to vary with other cultural dimensions. For example, citizens of wealthy, industrialized nations have very high levels of satisfaction overall, and citizens of poor, third world nations have low levels of satisfaction overall. Research suggests that once a community of people reach a decent standard of living, however, differences in life satisfaction are less likely to be related to differences in wealth (Sousa & Lyubomirsky, 2001).
Researches also show that members of different cultures reach life satisfaction judgments in distinct ways. Suh, Diener, Oishi & Triandis (1998) suggested that members of collectivist and individualist cultures chronically rely on different types of information when assessing their life satisfaction. That is, members of collectivist cultures appear to rely on cultural norms (i.e. Am I expected to be satisfied?) to determine their life satisfaction judgments, whereas members of individualist cultures appear to rely on emotional experiences (i.e. Do I frequently feel happy and content?) as their guide to life satisfaction judgments.

**Gender:** The researches in literature shows that women are more depressed than men but also report higher level of life satisfaction and well-being. This is simply because of the affect men and women experiences. Women report experiencing affect both positive and negative with greater intensity and frequency than do men. That is, women tend to experience greater joy and deeper sadness and experience these emotions more often than do men. Life satisfaction is derived from different sources in men and women. Cognitive assessment, social resources, income and many others may be the different sources of life satisfaction in men and women.

In over half of OECD countries, more than three-quarters of both men and women reported “above average” scores (7 to 10) for life satisfaction. However, the percentages were 50% or less in the four eastern European countries and in Korea and Japan. (OECD, 2005; EFILWIC, 2003)

Although most research on life satisfaction has not been directly focused on the experiences of women, a few studies have investigated the unique predictors of life satisfaction for women. For example, several studies have demonstrated that the greater the gender equality within a culture (i.e. freedom to make reproductive choices, equal pay, equal value under the law, equal opportunity to education and achievement), greater the reported life satisfaction. This finding spans both equality in the broader cultural sense and equality within a marriage. For example, Cowan, Neighbors, De La Moreaux & Behnke (1998) found that women who report greater equality in their marriages tend to report greater life satisfaction than women whose marriages are relatively more traditional.

**Education:** Education also appears to be more highly related to life satisfaction for individuals with lower incomes and in poor nations. Perhaps poorer persons obtain
greater satisfaction from education because the achievement surpasses their expectations of what is attainable. For example, poor women in some cultures have little access to education, so when they do gain access, they may value and appreciate the experience more than those who perceive access to education as universal and easily available. Education may also provide access to greater occupational and income opportunities, which may additionally influence life satisfaction. Despite the overall trend suggesting that education is more strongly related to life satisfaction for the poor, recent studies have found that, in wealthy nations, the most highly educated individuals seem to be slightly dissatisfied with their lives. It is possible that the educational elite have higher expectations or greater cynicism about their lives. Indeed, income appears to be a better predictor of life satisfaction than level of education (Sousa & Lyubomirsky, 2001).

**Working status:** An individual’s employment status, regardless of income, appears to predict life satisfaction, such that the unemployed report significantly diminished satisfaction compared with the employed. When gender is taken into account, it appears that employment (or lack thereof) is more strongly associated with life satisfaction for men than for women. This finding is not surprising, given that there is less cultural pressure on women to work outside the home (Sousa & Lyubomirsky, 2001).

Evaluative assessments in the work (job satisfaction) and non-work (life satisfaction) domains have played a crucial role in work-family research. Many studies have reported significant positive relationship between job satisfaction and life satisfaction (e.g. Rain, Lane & Steiner, 1991) generally ranging from .31 to .44 (e.g. Rode, 2004). Researchers have argued that job satisfaction and life satisfaction should be related because of time devoted to the work role and because work has been identified as a central life interest (Dubin, 1956) thereby affecting overall feelings about one’s life.

**Economic status:** The relationship between income and life satisfaction is a complicated one. It seems that within nations, wealthier individuals are more satisfied than poorer individuals. Across nations, wealthier nations also show greater levels of life satisfaction than poorer nations; however, across-nation differences are smaller than within-nation differences. Furthermore, a robust finding in this literature
concerns the distribution of wealth within a nation that is, the greater the economic disparities among income levels and classes in a nation, the greater the dissatisfaction expressed overall and the greater the disparity between satisfaction levels of the wealthy and the poor. Thus, women who live in poorer, less egalitarian nations tend to be less satisfied with their lives overall than women who live in wealthier nations (Sousa & Lyubomirsky, 2001).

Despite significant correlations between life satisfaction and wealth, longitudinal research has shown that rises in people’s incomes do not necessarily coincide with related increases in life satisfaction. For example, Americans’ levels of life satisfaction before and after World War II did not increase despite significant growth in income during this time period. Several explanations have been offered to account for these results. Perhaps once a certain level of wealth is obtained, life satisfaction is no longer anchored to increases in wealth and in material goods. In addition, social comparison may account for this effect that is, comparing oneself with others as income and wealth increase may produce corresponding increases in expectations such that levels of satisfaction remain stable (Sousa & Lyubomirsky, 2001).

Social support: Several studies have examined the relationship between social support and life satisfaction among the elderly. Most of this literature has indicated a positive relationship between social support and life satisfaction among elderly people. Aquino, Russell, Cutrona & Altmaier (1996) found that social support was significantly related to life satisfaction. Their findings indicated that elders who were working or volunteering showed higher life satisfaction than those who were not working or volunteering. Further, these authors found that participants who engaged in volunteer work had more social supports than those who were not engaged in volunteer work, which in turn led to higher levels of life satisfaction. The findings also indicated that participants who reported low education and socioeconomic levels and who had poor physical health indicated that they had few social supports and low life satisfaction. Consequently, participants who were not functioning well enough to work or volunteer had fewer opportunities to build social networks, which afforded fewer opportunities to engage in satisfying relationships outside of the workplace than participants who were working or volunteering.
In Western nations, marriage appears to be even more predictive of life satisfaction than relationships with friends and family. Diener, Gohm, Suh & Oishi (2000) found that married women do not differ in their levels of life satisfaction from married men. However, married men reported greater positive affect than did married women, as well as did single people of both genders. Thus, men appear to benefit more from marriage than do women possibly because husbands become dependent on their wives' emotional support and household care. This study also found that cohabitating unmarried participants, especially those from collectivist cultures, reported less life satisfaction than did married participants. Married people are more satisfied with their lives and those with life-long marriages appear to be the most satisfied (Evans & Kelly, 2004).

**Personality Traits**

The sustaining and consistent characteristic reaction of the individual under different situations is called personality traits (Costa & McCrae, 1989). The individual behavior usually reflects the unique personality traits, such as shy, amenable, loyal and timid. If these characteristics appear sustaining in different situations, it is regarded as "personality traits". Therefore, personality traits are stable and extremely important compositions in people's life (Costa & McCrae, 1992).

Regarding the study on aspects of personality traits, since the directions of research and the theme to concern from the scholars are different, the classification of aspects of different personality traits has no unanimous view (Goldberg, 1993). Studies have indicated that factors such as self-esteem, perceived physical health, and locus of control are associated with life satisfaction (Girzadas, Counte, Glandon & Tancredi, 1993; Rogers, 1999). Kahana et al. (1995) found that short-term problems such as those caused by financial difficulties and changes in relationships through retirement or death may have a significant impact on life satisfaction. Studies show personality characteristics like assertiveness, empathy and extraversion also have a significant impact on life satisfaction.

Shichman & Cooper (1984) points out that people usually thinks that life satisfaction is an easy obtainable feeling such well-being, happiness or quality of life. Meadow (1988) believes that the overall degree of satisfaction with life is inevitably influenced by that of different areas in life, such as personal health, career, family and
leisure. Yet, such satisfaction in different areas of life is also the combination stemming from inside and outside of the human self.

Edginton, Jordan, De Graaf & Edginton (1995) think that satisfaction with life is a subjective and complex notion, implying that objective investigations are only able to provide an overview of how much one is satisfied economically, physically as well as emotionally, and they need to be further reinforced.

**Openness to experiences**: Openness to experience is significantly and positively related to satisfaction with life. Individuals who are open to a variety of experience generally are full of imagination, more focused on feelings of the heart, inclined to fine arts or equipped with the ability of appreciation, fond of more diversity, hungry for more knowledge, strongly curious, very independent in their thinking and judgments, unbiased (Barrick & Mount, 1991; Thomas, Moore & Scott, 1996; Neuman, Wagner & Christiansen, 1999), full of fantasy, inclined to aesthetics, feelings, actions, their own ideas and values (Costa & McCrae, 1992).

These people are not bound by conventional wisdom, have distinctive and sensitive thinking, are full of emotions and imagination, and they are highly creative. They are able to tolerate strange things and furthermore explore them, take the initiative to pursue different experience to make their life more colorful. Meanwhile, since they are highly mobile, they will engage themselves in the pursuit of relevant knowledge once they are interested in certain things, and participate in different activities, they are the ones who like the freshness of the unknown that motivate them to enhance their satisfaction with life.

**Neuroticism**: Neurotic character trait demonstrates a significantly negative correlation with satisfaction with life. People with neuroticism are primarily influenced by negative experience of their past, such as fear, grief, embarrassment, anger, sense of guilt, etc. These individuals generally find it difficult to control their impulses and emotions, and are less capable of dealing with pressure. According to Costa & McCrae (1992), they often demonstrate character traits such as anxiety, hostility, depression, self-consciousness, impulsiveness and vulnerability.

Highly neurotic individuals are very much incapable of facing frustrations. When under pressure, they choose to remain in situations that generate negative
effects (Emmons, Diener & Larsen, 1985). For the reason that they show preferential attention to negative stimuli (Rusting & Larsen, 1998).

**Extraversion:** The extrovert character trait is significantly and positively related to satisfaction with life. This trait implies the propensity of being highly sociable. However, this is only one facet among many factors to be measured. Individuals who are extroverted are more interested in being amongst people and taking the initiative to approach them. They are also more self-confident, self-initiated and talkative, as well as more inclined to exciting activities and be more active (Costa & McCrae, 1992).

Extroverts hold a more optimistic perspective towards matters of life, are more involved in social activities, and do not hold back when offering their abilities and passion as they immerse themselves in the past-paced, busy and fulfilling lifestyle in their respective expertise pursuing fun for themselves, while they do not let themselves ruled by negative emotions. For the very reason of pursuing fun and happiness in life, these people always show smile and vitality on their faces.

**Locus of control:** Results from studies suggest that individuals with a tendency toward internal locus of control, particularly with regard to physical health, show higher levels of life satisfaction than those who show a tendency toward external or chance locus of control (e.g. Haber, 1994; Searle, Mahon & Iso-Ahola, 1995; Wing-Leung Lai & McDonald, 1995). It follows that older adults who are not internally focused may show a tendency toward low life satisfaction.

Conversely, some studies have indicated that older adults who demonstrate a tendency towards external locus of control have higher life satisfaction than those with an internal or chance locus of control (e.g. Haber, 1994; Rogers, 1999). It may be that older individuals who are externally focused and who have developed trust in their health care provider actually be demonstrating higher levels of life satisfaction than those who rely on themselves or even chance for health care decisions. Specifically, the latter group may experience more guilt or feelings of hopelessness when faced with health problems, poor treatment, or poor decision making with regard to health care (Haber, 1994).

**Conscientiousness:** Conscientiousness is significantly and positively related to satisfaction with life. Individuals who are conscientious are usually very determinant.
disciplined, with strong will and trustworthy. They are very much achievement oriented, self-disciplined and deliberate in their thinking (Costa & McCrae, 1992). Vallerand, O'Connor & Blais (1989) found that older adults living in nursing homes that did not allow for personal autonomy or self-determination showed lower life satisfaction than older adults living in nursing homes that allowed for more personal independence or those living independently in the community highly conscientious people demand a lot from themselves, have a strong sense of responsibility and planning capability and are highly success oriented. Because the efficiency and hard work associated with this trait that foster task accomplishment, these individuals often plan ahead, are more organized and self-controlled. They are strong willed and determined to pursue their own goals (Schneider & Delany, 1972).

**Agreeableness:** Agreeableness is significantly and negatively related to satisfaction with life. This character implicates the ease to get along, communicate and work with others. Individuals possessing such a trait are trustworthy, straightforward, altruistic, compliant, modest and tender-minded (Costa & McCrae, 1992). It is also easier for them to establish friendship with others (Digman & Inouye, 1986) because they believe that human beings are innately kind, and they like helping others. These people are basically altruistic, will actively show compassion one others and wholeheartedly help them, believing that others would do likewise. They constantly put themselves in other people's shoes and do not ask for anything in return, making people feel warm.

To sum up, satisfaction with life is a mental feeling of wellbeing and fulfillment; it is also a subjective evaluation towards the self. It is a subjective, overall and comprehensive evaluation, as well as the subjective acknowledgment and feeling of the self with life status quo.
Chapter-2

Literature Review
LITERATURE REVIEW

Present chapter discusses different aspects of depression in relation to the variables like loneliness, optimism and life satisfaction in the light of available previous literature. It emphasizes on the studies and researches which shows and supports a relationship of depression with loneliness, depression with optimism and depression with life satisfaction in different populations which is as follows:

**Depression and loneliness**

Research on loneliness has been hampered by its strong association with depression. The two states frequently co-occur, and measures of the two states are substantially correlated. Inability to manipulate experimentally loneliness or depression makes it difficult to untangle the causal influence of one on the other. The combination of longitudinal design and structural equation methodology is proposed as a solution to this general problem. Measures of loneliness and depression were administered by Weeks, Michela, Peplau & Bragg, (1980) to undergraduates at two points 5 weeks apart. Data from 333 subjects were correlated and analyzed under a succession of structural equation models. Results indicated that loneliness and depression were correlated but clearly different constructs; neither was a direct cause of the other, though both probably share some common origins; both were highly stable over to 5 week period.

Lonely people have indicated they are less happy, less satisfied, more pessimistic, and suffer from more depressive symptoms (Peplau & Perlman, 1982) than people who are not lonely. Additional associations between loneliness and depressive symptoms were found in Hsu, Hailey & Range’s (1987) study of the cultural and emotional components of these two conditions. Findings indicated that depressed clients scored significantly higher on the UCLA Loneliness Scale than non-depressed foreign, American, and Chinese students, indicating a strong relationship between depression and loneliness, regardless of one’s nationality. Depressed individuals also scored significantly higher than both American and Chinese students on loneliness anxiety and loneliness depression, subscales of the Belcher Extended Loneliness Scale.
Researches shows loneliness has been correlated with numerous maladaptive characteristics and negative behavior states including depressive symptoms, suicide, hostility, alcoholism, psychosomatic illnesses and a poor self-concept (Rokach, Orzech, Moya & Exposito, 2002; McWhirter, 1990).

In a community survey of all residents over the age of 65 years of an electoral district in London, UK, researchers like Prince, Harwood, Blizard, Thomas & Mann (1997) found a moderate association between SHORT-CARE pervasive depression and the number of life events experienced over the previous year. Personal illness, bereavement and theft were the most salient events. There was a stronger, graded, relationship between the number of social support deficits (SSDs) and depression. Number of SSDs also related to age, handicap, loneliness and use of homecare services. Loneliness was itself strongly associated with depression; odds ratio 12.4 (7.6-20.0).

A study by Hagerty and Williams (1999) also found a significant association between loneliness and depressive symptoms among undergraduates and patients with major depressive disorder after controlling for social support, social conflict, and sense of belonging.

In an illustrative study, Nolen-Hoeksema and Ahrens (2002) investigated the levels of relationship between loneliness and depressive symptoms in 25 to 35 years old, 45 to 55 years old and 65 to 75 years old adults. Despite variations across the life span, the association between loneliness and depressive symptoms appeared to be stable (moderately and equivalently positive) across age. The researchers noted that their finding suggested that concerned over close relationships ere related to depressive symptoms at any point.

Over the years, there has been a strong positive correlation between loneliness and depression in the elderly population. In one quasi-experimental, cross-sectional, pilot study in the United Kingdom, Minardi and Blanchard (2003), found that loneliness was a factor that might relate to aging and depression (n= 24). It was found that the levels of depression in the day center setting were higher than in other community based studies. There was a strong association between depression and loneliness (Minardi & Blanchard, 2003).
Alpass & Neville (2003) suggested an important relationship between loneliness and psychological well-being in older adults particularly in the area of depression. Their study investigated relationships between loneliness, health and depression in 217 older men (≥ 65 years). Participants completed self-report measures of loneliness, social support, depression and physical health. Regression analysis showed that a diagnosis of illness or disability was unrelated to depression, however self-reported health was associated with depression, with those reporting poorer health experiencing greater depression. Social support variables were unrelated to depression. The most significant relationship to depression was that of loneliness, with lonelier men reporting higher scores on the Geriatric Depression Scale (GDS). Although research suggested that depression was often a response to decline in health and functional impairment in the older adult, their findings suggested that social isolation might also influence the experience of depression. Age related losses such as loss of professional identity, physical mobility and the inevitable loss of family and friends could affect a person's ability to maintain relationships and independence, which in turn might lead to a higher incidence of depressive symptoms.

Park & Chang (2004) had three distinct objectives in their study. First, to examine the relationships between perfectionism and loneliness to depressive symptoms. Second, to identify perfectionism and loneliness as unique predictors of depressive symptoms. Third, to examine whether perfectionism and loneliness interact to predict depressive symptoms. Eighty-nine college students (25 male and 64 female) were recruited from a large Midwestern university in their study. The Beck Depression Inventory, the MPS and UCLA loneliness scale were used as measures. Results suggested that the three dimensions of perfectionism measured by the Multidimensional Perfectionism Scale were significantly correlated with one another. In addition, loneliness was found to be correlated with depressive symptoms. Surprisingly, none of the dimensions of perfectionism were significantly correlated with depressive symptoms. Overall, perfectionism was found to be neither a significant main nor interactive predictor of depressive symptoms, while loneliness was found to be a significant unique main, but not interactive, predictor of depressive symptoms.

The extent to which loneliness is a unique risk factor for depressive symptoms was determined in 2 population based studies of middle aged to older adults, and the
possible causal influences between loneliness and depressive symptoms were examined longitudinally in the 2nd study by Cacioppo et al. (2006). In Study 1, a nationally representative sample of persons aged 54 and older completed a telephone interview as part of a study of health and aging. Higher levels of loneliness were associated with more depressive symptoms, net of the effects of age, gender, ethnicity, education, income, marital status, social support and perceived stress. In Study 2, detailed measures of loneliness, social support, perceived stress, hostility and demographic characteristics were collected over a 3-year period from a population based sample of adult’s ages 50–67 years from Cook County, Illinois. Loneliness was again associated with more depressive symptoms, net of demographic covariates, marital status, social support, hostility and perceived stress. Latent variable growth models revealed reciprocal influences over time between loneliness and depressive symptomatology. These data suggest that loneliness and depressive symptomatology can act in a synergistic effect to diminish well-being in middle aged and older adults.

Furthermore, using combined qualitative and quantitative methods to understand loneliness and depression in older adults, Barg et al. (2006) asked the elderly to describe a depressed person or themselves when depressed. Participants viewed loneliness as a precursor to depression, as self-imposed withdrawal, or as an expectation of aging. Using a structured interview, the same researchers found that, loneliness in the week prior to the interview was highly associated with depressive symptoms, anxiety and hopelessness. In summary, loneliness is the strongest predictor of depressed affect; thus, loneliness should be targeted in the treatment of depression.

Researchers have asserted that loneliness is a more prevalent and serious problem among adolescents than any other age group (Hudson, Elek & Campbell-Grossman, 2000). The construct loneliness has been identified as a risk factor for depressive symptoms in both cross-sectional (Chou & Chi, 2004; Nolen-Hoeksema & Ahrens, 2002) and longitudinal (Heikkinen & Kauppinen, 2004) studies. Prior work revealed that the levels of loneliness and depressive symptoms may vary across the life span.

In a study with Malaysian medical students, Swami et al. (2007) found that depression was positively and significantly correlated with loneliness. Their objective was to examine the associations between life satisfaction, loneliness, general health
and depression among 172 medical students in Malaysia. Their mediational analyses showed that the effects of loneliness and life dissatisfaction on depression were fully mediated by health. They concluded that less satisfied, and particularly lonelier, individuals are more likely to report higher levels of depression.

Recently in a study done by Luanaigh and Lawlor (2008), it was found that loneliness had strong associations with depression and may in fact be an independent risk factor for depression. Furthermore loneliness appeared to have a significant impact on physical health being linked detrimentally to higher blood pressure, worse sleep, immune stress responses and worse cognition over time in the elderly. There was a relative deficiency in adequate evidence based treatments for loneliness. As a result loneliness was highly salient to older adults whom they asked to describe a depressed person or themselves when depressed. Older adults viewed loneliness as a precursor to depression, as self-imposed withdrawal, or as an expectation of aging. In structured interviews, loneliness in the week prior to interview was highly associated with depressive symptoms, anxiety and hopelessness.

The research by Izgar (2009) aimed to investigate whether loneliness predicts depression, and to examine the levels of depression loneliness among school principals according to such variables as gender and educational background. The study was conducted on 232 school principals (37 females and 195 males). Thirty six of the participants had associate degrees, 164 had undergraduate degrees and 32 had graduate degrees. The UCLA Loneliness Questionnaire and the Beck Depression Inventory were used in order to gather the data. ANOVA, t-test, Pearson moments correlation coefficients and linear regression were used in order to analyze the data. Whether the levels of loneliness and depression differed significantly across gender was analyzed with a t-test. The results showed that the mean level of loneliness was x=34.38 for females and x=32.58 for males and the mean level of depression was x=29.11 for females and x=28.39 for males. Neither of the mean differences was significant (p = .15, p= .49, respectively). ANOVA was used in order to observe whether loneliness and depression levels differed according to educational levels. The mean loneliness levels were found to be x=34.45 for those who had associate degrees; x=32.59 for those who had undergraduate degrees; and x=33.93 for those who hold graduate degrees. Similarly, the levels of depression were found to be x=29.60 for those who had associate degrees; x=28.37 for those who had undergraduate degrees;
and \( x=28.50 \) for those who hold graduate degrees. Neither of the mean differences was significant \( (p = .39, p = .61) \). However there was a significant relationship between loneliness and depression when this relationship was observed with Pearson-product moments correlation coefficient \( (p = .05) \). A simple linear regression analysis showed that loneliness scores predicted 15.3% of depression.

Another study by Yaacob, Juhari, Talib & Uba, (2009) examined the degree of relationships between loneliness, stress and self-esteem with depression among adolescents. The respondents were 1407 secondary school adolescents aged between 13 to 17 years old from selected states in Malaysia. Data were collected by using a self-administered questionnaire. Adolescent depression was measured by Children Depression Inventory (CDI) (Kovacs, 1985) while stress was measured by Perceive Stress Scale (Cohen, 1983). Revised UCLA Loneliness Scale (Russell, Peplau & Cutrona, 1980) measured loneliness and Rosenberg Self-Esteem Scale (Rosenberg, 1965) measured self-esteem. The findings of the study showed that loneliness, stress and self-esteem have moderate significant relationships with depression and stress emerged as the strongest predictor of adolescent depression.

In a study by Han and Rechardson (2010), forty housebound older adults, aged 60 to 87 years, who lived alone in urban areas in the south eastern United States completed questionnaires to examine the association between loneliness and depression in this population and whether spirituality moderates this association. Of the participants 55% were White and 45% African Americans. The findings showed that loneliness and depression were significantly related but that spirituality did not significantly moderate this association. However, the positive relationship between loneliness and depression was weaker among older persons who reported higher scores on the spirituality measure suggesting that spirituality might act as a buffer between loneliness and depression. Implications of the findings for social work practice are discussed. The authors suggest that further research is needed in this area. They comment that spirituality might prevent loneliness from turning into depression; it may also alleviate depression and therefore invigorate a depressed older person to initiate social interactions, decreasing loneliness.

Cacioppo, Hawkley & Thisted, (2010) present evidence from a five year longitudinal study for the prospective associations between loneliness and depressive
symptoms in a population-based, ethnically diverse sample of 229 men and women who were 50 to 68 years old at study onset. Cross-lagged panel models were used in which the criterion variables were loneliness and depressive symptoms considered simultaneously. Variations on this model evaluated the possible effects of gender, ethnicity, education, physical functioning, medications, social network size, neuroticism, stressful life events, perceived stress, and social support on the observed associations between loneliness and depressive symptoms. Cross-lag analyses indicated that loneliness predicted subsequent changes in depressive symptomatology but not vice versa, and that this temporal association was not attributable to demographic variables, objective social isolation, dispositional negativity, stress or social support. The importance of distinguishing between loneliness and depressive symptoms and the implications for loneliness and depressive symptomatology in older adults are discussed.

By discussing the literature review of the relationship of depression and loneliness, it can be said that loneliness is positively related to depression. It is a significant predictor of depression.

**Depression and optimism**

As we all know that optimism is considered a positive phenomenon and depression as negative phenomena so most of the studies in literature show a negative correlation between depression and optimism whereas depression and pessimism are found to be positively related in most of the studies. In this chapter we will try to review some of the studies which support our hypothesis in context to depression and optimism.

Carver and Gaines (1987) examined the role of dispositional optimism versus pessimism as a moderator of the tendency to become depressed after a specific stressful life change: the birth of a child. Both optimism and depressive mood were assessed before several weeks of childbirth. Depressive mood was measured again three weeks postpartum. Even after statistically controlling for initial dysphoria, optimism was inversely correlated with subsequent dysphoria. The researchers found that the effect of optimism was most pronounced among women who initially were
not depressed, suggesting that optimism confers resistance to the development of depressive symptoms.

In a study looking at optimism–pessimism and stress, Bromberger and Matthews (1996) found a significant interaction between these variables in predicting depressive symptoms in a sample of 460 middle-aged adults. Moreover, a plot of the interactions by these investigators revealed that pessimistic adults experienced depressive symptoms, especially under conditions of greater stress, compared to more optimistic adults.

Puskar, Sereika, Lamb & Tasaire-Mumford, (1999) found a significant relationship between dispositional optimism and lower depression and anger among adolescents. The relationship between higher dispositional optimism and lower depression was also found in other studies (Mosher, Prelow, Chen & Yackel, 2006).

Alloy and Abramson (1999) did a study at Temple University and the University of Wisconsin using freshmen following 173 optimists and 176 pessimists. They found that 17% of the pessimists succumbed to a major depression in contrast with 6% of the optimists who developed minor depression. The researchers in this study also said that depression is a repetitive disorder and it has a tendency to happen to the same people over and over again. They wanted to study whether optimism offered protection for those who had formerly experience depression. They found that pessimists were more probable to be hit with depression than optimists were.

Hasan and Power (2002) investigated the relation between mothers’ generalized expectancies, mothers’ self-reported parenting practices, and their children’s optimism, pessimism, and depressive symptoms. A community sample of 81 children, 8 to 12 years old, and their mothers participated. Results showed that maternal pessimism correlated with child pessimism, and that maternal depressive symptoms correlated negatively with child optimism. Multiple regressions indicated that mothers who were moderately controlling had children who showed the most optimism, whereas those who allowed their children little autonomy in problem solving had children with the highest level of depressive symptoms.

The role of optimism in the quality of life has also been investigated (Steele & Wade, 2004) in depressive disorder emerging in patients suffering from somatic...
pathologies, (such as acute coronary syndrome) in which a significant inverse correlation was found between dispositional optimism and level of satisfaction in life on one hand and dispositional optimism as well as depressive symptoms emerging after the cardiovascular event on the other hand. The researchers concluded that optimism and depression are not positively correlated.

Karademas (2006) found that optimism partially mediates the relation of self-efficacy and perceived social support on life satisfaction and depressive symptoms. Mosher, Prelow, Chen & Yackel (2006) found that avoidant coping and social support mediated the relationship between optimism and depressive symptoms.

Tao-shao (2006) found that optimism and pessimism play different roles in depression. Optimism and pessimism are two related but distinct dimensions of general outcome expectancies. They used three hundred and thirty-four students (167 in each group, including male and female) with diverse majors from three universities in Beijing. The Life Orientation Test (Scheier & Carver, 1985) was used to measure students’ optimism and pessimism (Cronbach’s $\alpha = 0.70$), the Chinese version of CES-D (Radloff, 1977) was administered to measure students’ depression (Cronbach’s $\alpha = 0.87$), and a stress rating questionnaire was applied to measure students’ stress level (Cronbach’s $\alpha = 0.84$). The results indicated that optimism and depression were significantly but modestly correlated ($r = -0.26$, $p < 0.001$). They found that the protective roles of optimism tend to be more important for students with higher stress level, and the destructive roles of pessimism tend to increase for male students with higher level of stress.

Recently Velden et al. (2007) studied the association between dispositional optimism and depression in the victims of natural disaster. The results of this research showed that pessimists nurtured little hope for the future and were more at risk for depressive and anxiety disorders compared to optimists. They also found subsequent impairment of social functioning and quality of life among pessimists.

Fotiadou, Barlow, Powell & Langton (2008) examined the relationship between optimism, anxiety, depression, life satisfaction, coping and subjective health perception. They choose parents of children with cancer as one group and parents of healthy children as another group. They wanted to identify the characteristics of optimistic parents of children with cancer. One hundred parents of children with
cancer were recruited during attendance at Oncology Out-patient Clinics at a UK Regional Cancer Centre. A comparison group of 117 parents of healthy children was also recruited. As a result the researchers found that Parents of children with cancer had higher levels of anxiety, depression, optimism, satisfaction with life and subjective health perception than the comparison group. Optimism was significantly correlated with satisfaction with life, subjective health perception, anxiety and depression in both groups.

The objective of the study by Hart, Vella and Mohr (2008) was to examine positive affect and optimism as mediators of the relationship between improved depressions and enhanced benefit-finding. Multiple sclerosis (MS) patients (N=127), who participated in a larger, randomized clinical trial comparing two types of telephone psychotherapy for depression, were assessed at baseline, mid-therapy (8 weeks), end of therapy (16 weeks), and 6- and 12-month post therapy. Depression was measured with a telephone administered version of the Hamilton Rating Scale for Depression; and Optimism was measured with the Life Orientation Test-Revised by the researchers. Data were analyzed with multilevel random-effects models, controlling for time since MS diagnosis and type of treatment. Improved depression was associated with increased benefit-finding over time. The findings of the study were that the relationship between improved depression and benefit-finding was significantly mediated by both increased optimism and increased positive affect.

Sumer, Giannotta, Settanni & Ciairano (2009) examined the mediating role of parental support on the relation between optimism and depression in a community sample consisting of 149 middle school students (68 boys and 81 girls) aged from 12 to 13 (mean age = 12.60, SD = 0.60) and living in an urban area in Northern Italy. In order to assess the level of optimism, they used the Life Orientation Test-Revised (LOT-R; Scheier et al., 1994). The Children’s Depression Inventory (CDI; Kovacs, 1985) and the Network of Relationship Inventory (NRI; Furman, Laursen and Mooney, 1985) were used to investigate respectively depression and parental support. They found parental support as partially mediating effectors between optimism and depression. That is, adolescents who perceived higher dispositional optimism were also less depressed.
Peleg, Barak, Harel, Rochberg & Hoofien (2009) investigated the extent in which two coping variables—hope and dispositional optimism—were related to depression severity amongst individuals who had sustained traumatic brain injury (TBI). Using Beck Depression Inventory (BDI), the Adult Hope Scale (AHS), and the Life Orientation Test-Revised (LOT-R) the investigators found high levels of depression in the study sample, while hope and dispositional optimism were significantly lower in comparison to the general population. The correlation patterns indicate that both hope and dispositional optimism negatively correlated with participants' depression levels and they showed significant positive correlations with each other.

Optimism is an inclination to put the most favorable construction upon actions and events or to anticipate the best possible outcome. Several studies found that optimism, depression, physical and psychological well-being, anger and anxiety are interrelated phenomena. The more optimistic people feel, the healthier they are psychologically and physiologically (Scheier & Carver, 1987; Vickers & Vogeltanz, 2000; Giltay, Zitman & Kromhout, 2006; Rausmussen, Wrosh, Scheier & Carver, 2006; Scheier & Carver, 2002).

The aim of the study by Marquez, Losada, Penacoba and Romero (2009) was to analyze if the association between caregivers' stress and their levels of depression is moderated by dispositional optimism. They conducted face to face interviews with a sample of 115 informal caregivers (mean age: 59.77; standard deviation=13.12; 77.4% female). They used measures of appraisals of behavioral problems (RMBPC), dispositional optimism (LOT-R) and depression (CES-D). The researchers analyzed the moderator role of optimism (global score and factors—optimism and pessimism) through linear regression analyses. The tested model explained the 48% of the variance in depression, with main effects of appraisals (beta=0.34; p<0.01), optimism (factor) (beta=-0.49; p<0.01) and its interaction (beta=-0.26; p<0.01). The optimism factor was the only variable that showed a moderating effect. Optimistic caregivers with higher levels of stress associated with behavioral problems showed lower depression scores than non-optimistic caregivers.

Manazec, Daly, Douglas & Lipson (2010) examined the relationships between dispositional optimism, quality of life, anxiety, depression and spiritual well-being.
being in newly diagnosed adult cancer patients who had enrolled in a psychosocial data registry. The sample consisted of 163 patients with mixed diagnoses and stages who were within 180 days since diagnosis and had completed a battery of psychosocial measures upon enrollment into a psychosocial data registry during their first outpatient visit or treatment. Dispositional optimism was evaluated with the Life Orientation Test-Revised (LOT-R). A cross-sectional, predictive correlational design was used. In the result statistically significant, inverse linear relationship was found between optimism and depression ($r = -.35, p < .001$).

Joshi and Tomar (2010) hypothesized that pessimistic adolescents will be significantly higher on depression and its dimensions than optimistic adolescents. Results of the study showed that optimists and pessimists differ from each other on the level of depression. Pessimists were found to have higher level of depression as compared to optimists. The level of apathy, pessimism, and tendency of fatigability, irritability, social withdrawal, self-dislike, self-acquisition, self-harm, social reoccupation and indecisiveness was higher among pessimist adolescents as compared to optimists. It can be said that optimists possessed low level of depression and lower tendency of apathy, pessimism, fatigability, irritability, social withdrawal, self-dislike, self-acquisition, self-harm, social reoccupation, and indecisiveness. Optimists and pessimists showed no significant difference on sleep disturbance and the feeling of dejected or sadness. On the basis of obtained findings the proposed hypothesis was partially accepted claiming that optimist adolescents possess low level of depression and its dimensions except sleep disturbance and the feeling of Sadness.

Rajandram et al. (2011) hypothesized that higher levels of hope and optimism would be related to lower psychological distress that is depression and anxiety, in oral cavity cancer (OCC) patients. They found that optimism was negatively correlated with depression ($r = -.55, p < .001$) and anxiety ($r = -.35, p < .05$). Regression analyses identified that both hope and optimism were negatively correlated with patients’ level of anxiety and depression and both were significant predictors of depression.

Tindle et al. (2012) examined how optimism affects treatment of depression in post-CABG patients. They conducted exploratory post hoc analyses of 284 depressed post-CABG patients (2-week post-hospitalization score in the 9-item Patient Health
Questionnaire ≥ 10) and 146 controls without depression who completed the Life Orientation Test - Revised (full scale and subscale) to assess dispositional optimism. They researcher's classified patients as optimists and pessimists based on the sample-specific Life Orientation Test - Revised distributions in each cohort (full sample, depressed, and non-depressed). For 8 months, they assessed health-related quality of life (using the 36-item Short-Form Health Survey) and mood symptoms (using the Hamilton Rating Scale for Depression [HRS-D]) and adjudicated all-cause re-hospitalization. They defined treatment response as a 50% or higher decline in HRS-D score from baseline. Compared with pessimists, optimists had lower baseline mean HRS-D scores (8 versus 15, p = .001). Among depressed patients, optimists were more likely to respond to treatment at 8 months (58% versus 27%, odds ratio = 3.02, 95% confidence interval = 1.28-7.13, p = .01), a finding that was not sustained in the intervention group. The optimism subscale, but not the pessimism subscale, predicted treatment response. By 8 months, optimists were less likely to be re-hospitalized (odds ratio = 0.54, 95% confidence interval = 0.32-0.93, p = .03).

Overall an overview of the literature review of the relationship of depression and optimism-pessimism shows a positive relationship of depression with pessimism while a negative relationship with optimism.

Depression and life-satisfaction

Life dissatisfaction is strongly related to depressive symptoms Headley, Kelley & Wearing (1993). In their study the participants completed a series of questionnaires assessing their general life satisfaction, positive affect, anxiety and depression. They found that “one of the well-being (psychological) dimension, life satisfaction, is quite strongly and negatively correlated with a distress (psychological) dimension, depression; life satisfaction and depression are near opposites” (p. 63). Similarly Lam, Pacala & Smith, (1997) found life satisfaction to be negatively associated with depression. Researches (Johnston & Miklos 2002; Underhill et al., 2003) show that prevalence of depression is strongly related to perception of low life satisfaction. These researchers found very low ratings of life satisfaction, accompanied by high rates of depression and anxiety, in samples of persons with traumatic brain injury (TBI).
Simpson, Schumaker, Dorahy & Shrestha (1996) found a significant inverse relationship between depression and life-satisfaction. For this study of cultural differences in the extent of depressive symptomatology and life satisfaction, 311 Australian and 250 Nepalese university students completed the Center for Epidemiological Studies Depression Scale (CES-D) and the Satisfaction With Life Scale (SWLS). A moderate significant inverse relationship was found between depressive symptoms and life satisfaction in the Australian respondents, with a smaller significant inverse relationship observed among the Nepalese respondents.

The objective of the study by Chou & Chi (1999) was to identify the predictive variables of life satisfaction in Chinese elderly people. Data came from a longitudinal study of a representative community sample of the elderly Chinese population in Hong Kong. Life satisfaction was measured by the Chinese version of the Life Satisfaction Index-A Form (LSI-A). The Chinese version of the 20-item Centre for Epidemiological Studies of Depression (CES-D) scale was used to measure depressive symptoms. The correlations between variables used in the regression analyses for male and female respondents show that in female respondents, life satisfaction at three-year follow-up was highly associated with CES-D scores ($r = \pm 0.59, p < 0.001$). The results of the prospective analysis for female and male respondents showed that baseline LSI-A scores were the strongest predictor of follow-up LSI-A scores. Explaining about 28% of the variance for female CES-D score ($b = \pm 0.30, p < 0.05$) were significantly associated with LSI-A scores assessed three years after baseline; specifically, older female respondents, female respondents with higher levels of CES-D and female respondents with greater financial strain reported lower level of life satisfaction.

The study by Shaun, Saunders & Roy (2000) aimed to explore the relationship between depression, life-satisfaction and social interest. 87 students from the University of Newcastle were administered the Beck Depression Inventory, the Satisfaction with Life Scale, and the Social Interest Index. Considering that both social interest and depression were each significantly correlated with life satisfaction, a partial correlation was calculated for the relationship between the BDI and the SWLS, with SII held constant. As hypothesized, it was found that depression was negatively correlated with life satisfaction. This yielded a statistically significant negative correlation of -.39 ($p \ll .001$).
In a 1-year prospective study on 188 depressive patients receiving standard psychiatric outpatient treatment, Koivumaa-Honkanen et al. (2001) wanted to study the relationship of a self-rated four-item life satisfaction scale (LS) to the self-rated 21-item Beck Depression Inventory (BDI) and the 17-item Hamilton Rating Scale for Depression (HAMD) and to study LS changes during recovery from depression. Using linear regression analysis it was found that LS was strongly correlated with BDI and HAMD. It explained 46.6% of the variation in BDI at baseline and 66.2% at 12 months. LS improved substantially during recovery. The main recovery occurred during the first 6 months, the change in the LS score explaining 46.5% of the change in the BDI scores (P < 0.001). It was concluded that life satisfaction was strongly affected in depression, and also it improved concurrently with recovery from depression.

Benrud-Larson, Sandroni, Schrag & Low, (2005) investigated the rate of depressive symptoms and their relationship to life satisfaction in patients with multiple system atrophy (MSA). Ninety-nine patients with MSA (54% women: mean age, 67.8 +/- 8.8) completed measures of depressive symptoms, life satisfaction, physical function, and disease and demographic factors. As a result, participants reported a high rate of depressive symptoms, with 39% endorsing moderate to severe depressive symptoms on the Beck Depression Inventory (BDI >= 7). Reported life satisfaction was low, with a mean of 38.8 on a 100-point visual analogue scale (0 = Extremely Dissatisfied, 100 = Extremely Satisfied). Regression analysis revealed that depressive symptoms accounted for an additional 15% of the variance in life satisfaction. It was concluded by the researchers that depressive symptoms were common, often severe, and an important determinant of life satisfaction in patients with MSA.

Swami et al. (2007) examined the associations between life satisfaction, loneliness, general health and depression among 172 medical students in Malaysia. Participants completed a questionnaire battery, which included the 12-item General Health Questionnaire, Beck's Depression Inventory, the Revised UCLA Loneliness Scale and the Satisfaction with Life Scale. Descriptive statistics (M and SD), internal consistencies (Cronbach's a), and bivariate inter-correlation coefficients (Pearson's r) for all measures were reported. As a result negative and significant (r = -0.38, p < 0.01) correlation was found between life satisfaction and depression.
In another study by Sinikallio et al. (2007), the researchers examined self-reported life satisfaction and associated factors in patients (n=100) with lumbar spinal stenosis (LSS) in secondary care level, selected for surgical treatment. Life satisfaction was assessed with the four-item Life Satisfaction scale. Depression was assessed with a 21-item Beck Depression Inventory (BDI). Psychological well-being was assessed with Toronto Alexithymia Scale and Sense of Coherence Scale. All questionnaires were administered before surgical treatment of LSS. Results showed that 25% of the patients with LSS were found to be dissatisfied with life. The dissatisfied patients also showed lower coping resources, and elevated depression scores, and were more often depressed. The mean BDI score of all patients was 10.2 (SD 6.0). Both the mean BDI score and the proportion of subjects who were depressed were significantly higher in the dis-satisfied group.

Varshney (2007) aimed to identify the predictors of successful aging. She wanted to study the associations between social network patterns, life satisfaction, depression, subjective health, and leisure time activity for older adults in India. One hundred fifty participants in India completed the Life Satisfaction Questionnaire, Geriatric Depression Scale, Health Awareness Schedule, and the Leisure Time Activity Record. Using correlation analysis it was determined that there was a significant negative correlation between life satisfaction and depression levels (Pearson’s r (150) = -.904, p < .001), indicating that participants with higher sense of life satisfaction endorsed fewer depressive symptoms. Regression analysis for life satisfaction (R = .946, R2 = .896) indicated that depression levels (B = -7.304, β = -.723) with t-values of p < .01, were significant predictors of life satisfaction. The researcher concluded that older adults with higher perception of subjective health as well as lower depressive levels have a higher sense of life satisfaction or a cognitive sense of satisfaction with life.

The aim of the study by Chapin and Holbert (2009) was to assess whether persons with spinal cord injuries who were successfully rehabilitated, differed from those who were not with regard to positive and negative affect, life satisfaction, and depression. An ex post facto research design was used to compare persons with spinal cord injuries who were previously employed, with persons with spinal cord injuries who were not employed after receiving services from a south-eastern state Division of Vocational Rehabilitation Services program. It was found that there were no
significant differences between the two groups based on age, gender, race, current level of education, and time employed prior to their injury. The unsuccessfully rehabilitated had lower positive affect and higher negative affect. They were less satisfied with their life and found more depressed.

In a cross-sectional study, Eriksson, Kottorp, Borg and Tham (2009) wanted to explore the relationship between occupational gaps, depressive mood and life satisfaction in persons who have acquired a brain injury during the past 1–4 years and to test the Occupational Gaps Questionnaire. A total of 116 persons with traumatic brain injury or subarachnoid hemorrhage were acquired 1–4 years previously. A postal survey was done with questions on occupational gaps, focusing on the domains instrumental activities of daily living, social life, leisure and work (Occupational Gaps Questionnaire), life satisfaction (LiSat-11 checklist) and depressive mood (Hospital Anxiety and Depression Scale). In their results the researchers found that the absence of depressive mood contributed significantly to greater life satisfaction.

The overall aim of the study by Berga et al. (2009) was to identify the most relevant covariates of life satisfaction in a sample of non-demented people aged 80 and over (Study I), and to investigate if these also were predictors of possible changes in life satisfaction across four time points over a six-year period (Study II). Data were drawn from the Swedish OCTO-Twin-study of individuals aged 80 and older. The Life Satisfaction Index-Z (LSI-Z), and Center for Epidemiologic Studies Depression Scale (CES-D) was used to assess life satisfaction and depression respectively. Growth curves within a mixed, or multilevel, modelling (MLM) framework was conducted in SPSS to study both overall trajectory and inter-individual differences in intra individual changes in life satisfaction across a 6-year interval. In the results the researchers found that more initial depressive symptoms were related to lower initial levels of life satisfaction (-0.43, SE = 0.04, p < 0.001), and the level 1 effect of change in depressive symptoms was also negatively related to concurrent level of life satisfaction across the study (-0.09, SE = 0.04, p < 0.05). In their final model researchers concluded that Greater initial depressive symptoms were related to lower levels of life satisfaction (-0.17, SE = 0.06, p < 0.01).

The aim of the study by Sinikallio et al. (2009) was to examine the life satisfaction of lumbar spinal stenosis (LSS) patients up to the 2-year postoperative
Chapter – 2  Literature Review

phase. Patients \((N = 102, \text{mean age- 62 years})\) with symptomatic LSS underwent the de-compressive surgery. Data was collected with the same set of questionnaires before surgery and 3 months, 6 months, 1 year and 2 years postoperatively. Life satisfaction was assessed with the four-item Life Satisfaction scale and depression symptoms with the 21-item Beck Depression Inventory (BDI). Logistic regression analysis was used to examine the preoperative factors independently associated with dissatisfaction with life (LS scores 12–20) on 2-year follow-up. Two years postoperatively, 18% of the LSS patients were found dissatisfied with their lives. As a whole, the life satisfaction of the LSS patients improved during the postoperative follow-up, reaching the level of the healthy adult Finnish population. However, 2 years postoperatively, dissatisfied patients reported significantly more pain, a poorer functional ability and more depressive symptoms and depression than the patients who were satisfied with their life. This difference was seen throughout the postoperative follow up.

The purpose of the study by Lue, Chen and Wu (2010) was to determine the incidence of depression in late life and to explore associated risk factors among Taiwanese elderly. A total of 1,487 respondents aged 65 years and older who completed the 10-item Center for Epidemiological Survey Depression (CES-D) scale. The independent variables included socio-demographic characteristics, occurrence of new diseases, social support, perceived health and financial stresses, life satisfaction, and functional condition. Multivariate regression analyses revealed that women who perceived greater health or financial stress and who had greater life dissatisfaction or worsened functional condition were more likely to suffer depression.

Stalnacke (2011) wanted to investigate pain intensity, posttraumatic stress, depression, anxiety, disability, and life satisfaction in patients with injury-related chronic pain and to analyze differences in these variables regarding gender. Participating subjects were 160 consecutive patients, 104 women and 57 men, aged 17–62 years \((36 \pm 10)\) diagnosed with chronic musculoskeletal pain caused by an injury and referred from regional general practitioners to the Pain Rehabilitation Clinic. Questionnaires addressing pain intensity (visual analogue scale [VAS]), anxiety and depression (hospital anxiety and depression [HAD] scale), posttraumatic stress (impact of event scale), disability (disability rating index, and life satisfaction [LiSat-11]) were used to collect data. In the results of the study the researchers found
the non-satisfied patients reported statistically significant higher scores on HAD-depression \((r = -0.380, P < 0.001)\) on the domain “life as a whole”, in comparison with patients who were satisfied with their life. Logistic regression was also used to investigate factors (including depression) that could be associated with life satisfaction. A statistically significant association was found between “unsatisfied with life as a whole” and HAD-depression \((OR = 1.141, CI 1.014–1.285)\).

Nes et al. (2013) examined the genetic and environmental influences on association between liability to lifetime DSM-IV Major Depressive Disorder (MDD) and dispositional life satisfaction (LS). Structured clinical interviews were conducted in a population-based sample of adult twins by using Two-wave questionnaire on Life Satisfaction and lifetime Major Depressive Disorder. Statistical analysis was done by using structural equation modeling in Mx. Results of the study indicated that Individuals fulfilling the criteria for MDD reported significantly lower levels of LS. Both men and women who met the criteria for lifetime major depression (15.8% and 11.1% respectively) reported lower life satisfaction.

Overall, the literature review of the relationship of depression with loneliness, optimism and life satisfaction points out that loneliness and pessimism are positively related to depression while optimism and life satisfaction are inversely related to depression. The provided literature gives us a direction for present research work.

**Objectives of the present study**

The main objectives of the present investigation are:

- To find out a relationship of depression with loneliness among old age participants.
- To find out a relationship of depression with optimism and pessimism among old age participants.
- To find out a relationship of depression with life satisfaction among old age participants.
- To find out a difference between male and female old age participants with regard to depression, loneliness, optimism and life satisfaction.

- To find out a difference between rural and urban old age participants with regard to depression, loneliness, optimism and life satisfaction.

- To find out a difference between old age participants with spouse alive and old age participants without spouse alive with regard to depression, loneliness, optimism and life satisfaction.

- To find out a difference between financially dependent and financially independent old age participants with regard to depression, loneliness, optimism and life satisfaction.

- To find out a difference between old age participants living with their family and old age participants living without family with regard to depression, loneliness, optimism and life satisfaction.

- To find out a difference between illiterate, less educated and highly educated old age participants with regard to depression, loneliness, optimism and life satisfaction.
Chapter-3

Methodology
METHODOLOGY

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them. It explains how results were achieved; gives explanation of how data was collected or generated; gives answer of how data was analyzed and also gives explanation of methodological problems and their solutions or effects. More over methodology guides the researcher to involve and to be active in his or her particular field of enquiry. In most of the situations the aim of the research and the research topic won’t be same at all time it varies from its objectives and flow of the research but by adopting a suitable methodology this can be achieved.

As we know that the present work has been designed to investigate “Depression in relation to loneliness, optimism and life satisfaction”. The research methodology sums the sampling procedure, used statistical tools, procedure, statistical analysis and hypothesis of the study. Following are the detailed expression of methodological process of the present study:

Participants

Participants in social science research are people upon whom hypothesis are tested. It is always a difficult task faced by a researcher, particularly in social science researches regarding the method of drawing samples and deciding about the size of the sample. Though it is not possible for any investigator to cover the entire population of interest for the purpose of study, hence a representative sample from the population is always used. A sample is a small part of total existing events, objects or the information (Mohsin, 1984). It is a portion of a population or universe as to be representative of that population or universe (Kerlinger, 1983). This means that sampling is the process of drawing a small part of the population and assuming it to be representing characteristics of the whole population.

The participants of the present research consisted of 400 old age people. The age range of the participants was 60 to 85 years (mean age 68.39). Sample was randomly selected from the population of different areas of Delhi and Aligarh city.
The method of random sampling was a lottery method. Further on the basis of
demographic information gathered from the participants, the sample was divided into
different sub groups. Respondents consisted of 167 (41.7%) male, and 233 (58.2%)
females. Out of all respondents 195 (48.7%) participants were such who were living in
rural area while 205 (51.2%) participants were living in urban area. There were 226
(56.5%) participants were having their spouses alive while 174 (43.5%) participants
were living their life without spouses (spouse not alive). Sample consisted of 209
(52.2%) participants who were dependent financially on their family members and
191 (47.7%) were such who were independent and earning by their own or getting
regular income from government sources. There were 260 (65%) participants who
were living with their families and 140 (35%) were living without their families. Out
of all the participants 107 (26.7%) were illiterate who were not educated at all (they
did not receive any formal education), 165 (41.2%) participants were less educated
(they were the people who were literate but not at a higher level. Participants, who
were educated up to 12th, were kept in this category) while 128 (32%) participants
were highly educated (participants who were educated above 12th and had gotten
professional or non-professional degree from any reputed organization or university
were categorized in this group).

Research design

The proposed research design in the present study was correlational as well as
comparative in nature. Correlational research design tests for statistical relationships
between two or more variables. The researcher begins with the idea that there might
be a relationship between the two variables. The researcher then measures the
variables for each of a large number of cases and checks if they are in fact related.
Further comparative research in social sciences, aims to make comparisons to
discover something across different groups, societies, cultures or countries. Different
groups are compared to test the availability of some variables.

Tools

In the area of social science research, especially in psychology, different
psychological tests and tools are developed to measure different aspects of human
behavior and the complexity of personality. A research tool is the instrument with
which the researcher measures the variables and uses them for data collection in his
study. Following tools were used to collect the data from the participants in the present research:

**Beck Depression Inventory 2nd Edition**

The BDI-II (Beck et al., 1996) is a 21-item self-report depression screening measure. Each item is rated on a 4-point likert-type scale ranging from 0 to 3, with higher scores indicating higher levels of depression. The measure asks respondents to endorse statements characterizing how they have been feeling throughout the past 2 weeks. The maximum total score for all 21 items is 63. According to the BDI-II manual, scores of 0 to 13 denote minimal depression, scores of 14 to 19 denote mild depression, scores of 20 to 28 denote moderate depression, and scores of 29 to 63 denote severe depression. BDI-II is positively correlated with the Hamilton depression Rating Scale with a Pearson r of 0.71. The test was also shown to have a high one-week test-retest reliability (Pearson r = 0.93), test also has high internal consistency (α = .91).

**UCLA Loneliness Scale (version 3)**

This is a 20-item scale by Russell (1996), designed to measure one's subjective feelings of loneliness as well as feelings of social isolation. Participants rate each item on a scale from 1 (Never) to 4 (Often). The minimum score on the UCLA loneliness scale scored by a participant is 20 and the maximum score is 80. Out of 20 items, 9 items are scored in a reverse way. The measure is found to be highly reliable, both in terms of internal consistency (coefficient α ranging from .89 to .94) and test-retest reliability over a 1-year period (r = .73). Convergent validity for the scale was indicated by significant correlations with other measures of loneliness. Construct validity was supported by significant relations with measures of the adequacy of the individual's interpersonal relationships, and by correlations between loneliness and measures of health and well-being.

**Optimism-Pessimism Scale**

The optimism-pessimism scale or OPS (Dember et al., 1989) was developed from the assumption that separate tendencies regarding optimism and pessimism should be measured separately. The OPS is considerably longer than the measures just described, with 18 items reflecting optimism, 18 items reflecting pessimism and 20 fillers. Items are chosen based on a four point likert scale that ranges from "strongly
agree" to "strongly disagree." The OPS is based on the view that a person can be both optimistic and pessimistic, but at varying degrees. Validity and reliability for the OPS have found alpha coefficients of $r = .94$ for the optimism scale and $r = .86$ for the pessimism scale. Test-retest reliability after two weeks was $r = .75$ for optimism and $r = .84$ for pessimism (Dember & Brooks, 1989; as cited in Burke et al., 2000).

Satisfaction with Life Scale

SWLS by Diener et al. (1985) is a 5 item scale which allows individuals to rate their degree of agreement or disagreement on a 7 point likert type scale for the stated questions. SWLS does not focus on specific areas such as loneliness, as it is intended to measure general/global satisfaction. It has been shown to detect change with regards to life satisfaction during clinical interventions. Participants are instructed to rate each of the five statements of the SWLS on a 7-point scale (1=strongly disagree to 7=strongly agree). A maximum score is 30 with the degree of life satisfaction increasing as the score increases. Score ranges from 5 to 9 exhibits someone who is ‘extremely dissatisfied with life’, 15 to 19 indicates ‘slightly dissatisfied with life,’ 21 to 25 indicates ‘slightly satisfied’ whereas a score of 26 to 30 represents ‘high satisfaction’. A neutral point on the scale is located at a score of 20 and explains that the participant is neither satisfied nor dissatisfied with life. The scale has a good convergent and discriminant validity. Reliability has been demonstrated in terms of high internal consistency with a value of 0.87 and stability overtime with a test-retest coefficient of 0.82.

Procedure

The investigator reached each participant individually. After establishing a good rapport with the subject, the investigator asked him to reply confidently for each item in the questionnaires. The questions or items were explained in an easier way to make them understood. Any misconception or doubt regarding the study was removed before the subjects and they were made assured of the confidentiality of their responses so that they could give their true responses without any hesitation. The average time taken by each subject was 50 to 60 minutes. After taking the responses from the subjects, the questionnaires were collected for scoring and further analysis.
Statistical Analyses

In social sciences research, statistical analysis is the heart of most experiments. Statistics is the science of collecting, analyzing and making inference from data. Statistics is a particularly useful branch of mathematics that is not only studied theoretically by advanced mathematicians but one that is used by researchers in many fields to organize, analyze and summarize data. Statistical methods and analyses are often used to communicate research findings and to support hypothesis and give credibility to research methodology and conclusions. It is important for researchers and also consumers of research to understand statistics so that they can be informed evaluate the credibility and usefulness of information and make appropriate decisions.

Statistics can be described as a scientific and mathematical study of data. In very large datasets, it is impossible or impractical to quickly analyze every piece of data, so a sample of the data is studied and the rest of the data results can be extrapolated from the sample data. This gives mathematicians results faster and allows for other mathematical exercises such as trend analysis, frequency and distribution analysis and many other types of data interpretation.

In the present investigation the researcher is interested to find out the relationship of loneliness, optimism and life satisfaction with depression. Descriptive analysis was done to know the mean and standard deviation (SD) of all the predictors and criterion variables in each different group.

Three statistical techniques were used to test the hypothesis. Firstly ‘Stepwise Multiple Regression’ technique was used to analyze the impact of different predictor variables (loneliness, optimism-pessimism and life satisfaction) on the criterion variable (depression) overall, then among different groups of participants. Stepwise multiple regression analysis gives the best combination of independent (predictor) variables to predict the dependent (predicted) variable. In the second sections, ‘t-test’ and ‘ANOVA’ were used to see whether depression, loneliness, optimism-pessimism and life satisfaction differ significantly across different groups of old age people.
Chapter – 3

Methodology

Hypothesis

In the proposed research certain alternate and null hypothesis were formulated to reach the objectives. These are as follows:

$H_1$ It was expected that a significant relationship of depression with loneliness, optimism-pessimism and life satisfaction exists among overall old age people.

$H_2$ It was expected that a significant relationship of depression with loneliness, optimism-pessimism and life satisfaction exists among male and female old age people.

$H_3$ It was expected that a significant relationship of depression with loneliness, optimism-pessimism and life satisfaction exists among rural and urban old age people.

$H_4$ It was expected that a significant relationship of depression with loneliness, optimism-pessimism and life satisfaction exists among old age people with spouse alive and old age people with spouse not alive.

$H_5$ It was expected that a significant relationship of depression with loneliness, optimism-pessimism and life satisfaction exists among financially dependent and financially independent old age people.

$H_6$ It was expected that a significant relationship of depression with loneliness, optimism-pessimism and life satisfaction exists among old age people living with their family and living without their family.

$H_7$ It was expected that a significant relationship of depression with loneliness, optimism-pessimism and life satisfaction exists among illiterate, less educated and highly educated old age people.

$H_8$ It was expected that no significant difference exists between male and female old age participants with regard to depression, loneliness, optimism- pessimism and life satisfaction.

$H_9$ It was expected that no significant difference exists between rural and urban old age participants with regard to depression, loneliness, optimism- pessimism and life satisfaction.
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$H_{10}$ It was expected that no significant difference exists between old age participants with spouse alive and old age participants with spouse not alive with regard to depression, loneliness, optimism-pessimism and life satisfaction.

$H_{11}$ It was expected that no significant difference exists between financially dependent and financially independent old age participants with regard to depression, loneliness, optimism-pessimism and life satisfaction.

$H_{12}$ It was expected that no significant difference exists between old age participants living with their family and old age participants living without their family with regard to depression, loneliness, optimism-pessimism and life satisfaction.

$H_{13}$ It was expected that no significant difference exists among illiterate, less educated and highly educated old age participants with regard to depression, loneliness, optimism-pessimism and life satisfaction.
Chapter-4

Result & Discussion
RESULTS

The present chapter provides the statistical analysis of the data obtained for investigation, interpretation and further for discussion. As it is pointed out in the previous chapter that the aim of the present investigation is to found out whether loneliness, optimism and life satisfaction are related to depression or not among old age people. Loneliness, optimism and life satisfaction are the independent variables while depression is considered as a dependent variable. Optimism and pessimism are the two dimensions of the variable optimism. Keeping in mind the main objective of the proposed study, the investigator used three kinds of statistical techniques. These are: Stepwise Multiple Regression Analysis, t-test and ANOVA analysis.

Overall, we can say this chapter gives the detailed interpretation of results along with the descriptive statistics of all the groups and overall sample for all the dependent and independent variables. Further this chapter is divided into two sections: In the first section results are shown obtained from stepwise multiple regression analysis, which was used to give the best combination of independent (predictor) variables to predict the dependent (predicted) variable among all the groups and overall. In the second section, results are shown obtained from t-test and ANOVA analyses which were used to see the group difference for all the variables.

All the computations were carried out in the computer using SPSS 16.0 version. The entire analysis was done in various different steps by computer. The output contained many tables as a result of computation. Like in case of stepwise multiple regression analysis ‘model-summary’, ‘ANOVA table’, ‘coefficient table’, ‘correlations table’ and ‘variables entered/removed table’ were shown as a result of output but investigator used only ‘model summery’ and ‘coefficient table’ in an edited form. F value is added in the model summary table. The remaining tables like list of excluded variables and others have not been entered here for the sake of convenience. In case of t-test, ‘independent sample test’ table is used in edited form, and in case of ANOVA one combined table of ‘descriptive statistics with F value’ and ‘multiple comparison table’ in edited form are used. Homogeneous tables are not presented here. Overall descriptive statistics of all the groups is presented in the beginning of this chapter.
## Results and Discussion

### Descriptive Statistics

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Table-1: Stepwise Multiple Regression of loneliness, optimism-pessimism and life satisfaction to predict depression among overall old age participants (N= 400):

Table-1.a Model Summary

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c. Predictors: (Constant), Pessimism, life satisfaction, loneliness
* Significant at .01 level, **significant at .05 level

The Table-1.a model summary presents the R, R square and adjusted $R^2$ values for each step along with the amount of $R^2$ change. The table indicates that out of all four predictors loneliness, optimism, pessimism and life satisfaction, only three predictors pessimism, life satisfaction and loneliness are significant among overall old age people.

In the first step, pessimism is entered into the model. Of primary interest are the $R^2$ and the adjusted $R^2$ values which are .591 and .590 respectively for the predictor pessimism, which explain that the weighted combination of the predictor variable (pessimism) explained approximately 59.1% of the variance of criterion variable (depression). Multiple correlation $R$ is found to be .769. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .591.

In the second step, life satisfaction is entered into the model 2. The $R^2$ and adjusted $R^2$ values are .647 and .645 respectively for the predictor variable life satisfaction, which explain that the weighted combination of the predictor variable (life satisfaction), explained approximately 64.7% of the variance of criterion variable. Multiple correlation $R$ is found to be .804. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable, is .056.

In the third step, loneliness is entered into the model 3. The $R^2$ and adjusted $R^2$ values are .660 and .657 respectively for the predictor variable loneliness, which
explain that the weighted combination of the predictor variable (loneliness), explained approximately 66% of the variance of criterion variable. Multiple correlation $R$ is found to be .812. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .012.

The prediction model contains three of the four predictors and is reached in three steps with no variable removed. With the help of ANOVA, we found that the model is statistically significant, $F (3, 369) = 255.855, p< .01$, and is accounted for approximately 66% of the variance of depression ($R^2 = .660$, adjusted $R^2 = .657$).

Table-1.b Coefficients

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Dependent variable: depression

Coefficient Table-1.b provides the details of the results. The $t$ and sig (p) values give a rough indication of the impact of each predictor variable. It is shown in the table that depression is predicted positively by pessimism (7.992) and loneliness (3.807), while negatively by life satisfaction (-8.864).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model is .429 for pessimism, -.356 for life satisfaction and .163 for loneliness, which indicates that a unit change in the predictor variable life satisfaction has a negative effect on criterion variable, while a unit change in the predictor variable pessimism and loneliness has a positive effect on the criterion variable.

As the statistical values given in the table are $t = 7.992$ for pessimism, $t = -8.864$ for life satisfaction, and $t = 3.807$ for loneliness, we may conclude that $t$ values are significant for all the predictors and the criterion variable (depression). The partial
correlation for pessimism, life satisfaction and loneliness are .373, -.407 and .188 respectively, showing that the predictors significantly influence the degree of depression. The t value for life satisfaction indicates a negative relationship with the criterion variable. It means that life satisfaction negatively influences the degree of depression, whereas the t value for pessimism and loneliness indicates a positive relationship with the criterion variable which means that pessimism and loneliness positively influence the degree of depression.

From the results, it can be interpreted that loneliness, pessimism and life satisfaction have a significant relationship with depression, so the hypothesis that there would be a significant relationship of depression with loneliness, pessimism and life satisfaction among overall old age people is accepted. While results show that optimism do not have any relationship with depression so the hypothesis that there would be a significant relationship of depression with optimism among overall old age people is rejected.

Table 2: Stepwise Multiple Regression of loneliness, optimism-pessimism and life satisfaction to predict depression among male old age people:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F (2, 164)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.662a</td>
<td>.439</td>
<td>.435</td>
<td>6.1678</td>
<td>.439</td>
<td>73.399*</td>
</tr>
<tr>
<td>2</td>
<td>.687b</td>
<td>.472</td>
<td>.466</td>
<td>5.9982</td>
<td>.034</td>
<td></td>
</tr>
</tbody>
</table>

b. Predictors: (Constant), life satisfaction, loneliness
* Significant at .01 level, **significant at .05 level

The table 2.a model summary presents the R, R square and adjusted R² values for each step along with the amount of R² change. The table indicates that out of all four predictors loneliness, optimism, pessimism and life satisfaction, only two predictor life satisfaction and loneliness are found significant among male old age people.

In the first step, life satisfaction is entered into the model. Of primary interest are the R² and the adjusted R² values which are .439 and .435 respectively for the
predictor life satisfaction, which explain that the weighted combination of the predictor variable (life-satisfaction) explained approximately 43.9% of the variance of criterion variable (depression). Multiple correlation R is found to be .662. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .439.

In the second step, loneliness is entered into the model. The $R^2$ and adjusted $R^2$ values are .472 and .466 respectively for the predictor variable loneliness, which explain that the weighted combination of the predictor variable (loneliness), explained approximately 47.2% of the variance of criterion variable. Multiple correlation R is found to be .687. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .034.

The prediction model contains two of the four predictors and is reached in two steps with no variable removed. With the help of ANOVA, we found that the model is statistically significant, $F(2, 164) = 73.399, p<.01$, and is accounted for approximately 47.2% of the variance of depression ($R^2 = .472, \text{adjusted } R^2 = .466$).

### Table 2.b Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>39.482</td>
<td>1.862</td>
<td>21.207</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Life Satisfaction</td>
<td>-1.067</td>
<td>.094</td>
<td>-.798</td>
<td>-11.315</td>
</tr>
<tr>
<td></td>
<td>Loneliness</td>
<td>.172</td>
<td>.053</td>
<td>.228</td>
<td>3.235</td>
</tr>
</tbody>
</table>

Dependent variable: depression

Coefficient table 2.b provides the details of the results. The t and sig (p) values give a rough indication of the impact of each predictor variable. As it is shown in the table that depression is predicted negatively by life satisfaction (-11.315) and positively by loneliness (3.235).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model is -.798 for life satisfaction and .228 for
loneliness, which indicates that a unit change in the predictor variable life satisfaction has a negative effect on criterion variable, while a unit change in the predictor variable loneliness has a positive effect on the criterion variable depression.

As the statistical values given in the table are $t = -11.315$ for life satisfaction and $t = 3.235$ for loneliness, we may conclude that $t$ values are significant for both the predictors and the criterion variable (depression). The partial correlation for life satisfaction and loneliness is -.662 and .245 respectively, showing that the predictors significantly influence the degree of depression. The $t$ value for life satisfaction indicates a negative relationship with the criterion variable. It means that life satisfaction negatively influences the degree of depression, while the $t$ value for loneliness indicates a positive relationship with the criterion variable which means that loneliness positively influences the degree of depression

From the results it can be interpreted that loneliness and life satisfaction have a significant relationship with depression so the hypothesis that there would be a significant relationship of depression with loneliness and life satisfaction among male old age people is accepted. Further results show that depression does not have any relationship with optimism and pessimism so the hypothesis there would be a relationship of depression with optimism and pessimism among male old age people is rejected.

Table 3: Stepwise Multiple Regression of loneliness, optimism, pessimism and life-satisfaction to predict depression among female old age people:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F (3, 229)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.832&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.693</td>
<td>.692</td>
<td>7.8396</td>
<td>.693</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>.845&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.715</td>
<td>.712</td>
<td>7.5760</td>
<td>.022</td>
<td>200.868*</td>
</tr>
<tr>
<td>3</td>
<td>.851&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.725</td>
<td>.721</td>
<td>7.4573</td>
<td>.010</td>
<td></td>
</tr>
</tbody>
</table>

<sup>c</sup> Predictors: (Constant), Pessimism, loneliness, life satisfaction  
<sup>a</sup> Significant at .01 level, <sup>b</sup>significant at .05 level
Chapter 4 Results and Discussion

The table 3.a model summary presents the $R$, $R^2$ square and adjusted $R^2$ values for each step along with the amount of $R^2$ change. The table indicates that out of all four predictors loneliness, optimism, pessimism and life satisfaction, only three predictors pessimism, loneliness and life satisfaction are found significant among female old age people.

In the first step, pessimism is entered into the model. Of primary interest are the $R^2$ and the adjusted $R^2$ values which are .693 and .692 respectively for the predictor pessimism, which explain that the weighted combination of the predictor variable (pessimism) explained approximately 69.3% of the variance of criterion variable (depression). Multiple correlation $R$ is found to be .832. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .693.

In the second step, loneliness is entered into the model 2. The $R^2$ and adjusted $R^2$ values are .715 and .712 respectively for the predictor variable loneliness, which explain that the weighted combination of the predictor variable (loneliness), explained approximately 71.5% of the variance of criterion variable. Multiple correlation $R$ is found to be .845. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .022.

In the third step, life satisfaction is entered into the model 3. The $R^2$ and adjusted $R^2$ values are .725 and .721 respectively for the predictor variable life satisfaction, which explain that the weighted combination of the predictor variable (life satisfaction), explained approximately 72.5% of the variance of criterion variable. Multiple correlation $R$ is found to be .851. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .010.

The prediction model contains three of the four predictors and is reached in three steps with no variable removed. With the help of ANOVA, we found that the model is statistically significant, $F (3, 229) = 200.868, p<.01$, and is accounted for approximately 72.5% of the variance of depression ($R^2 = .725$, adjusted $R^2 = .721$).
Table- 3.b Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Partial</td>
</tr>
<tr>
<td>(Constant)</td>
<td>10.818</td>
<td>5.365</td>
<td></td>
<td>2.016</td>
<td>.045</td>
</tr>
<tr>
<td>Pessimism</td>
<td>.433</td>
<td>.070</td>
<td>.478</td>
<td>6.176</td>
<td>.000</td>
</tr>
<tr>
<td>Loneliness 3</td>
<td>.208</td>
<td>.059</td>
<td>.234</td>
<td>3.550</td>
<td>.000</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>-.397</td>
<td>.137</td>
<td>-.187</td>
<td>-2.894</td>
<td>.004</td>
</tr>
</tbody>
</table>

Dependent variable: depression

Coefficient table-3.b provides the details of the results. The t and sig (p) values give a rough indication of the impact of each predictor variable. As it is shown in the table that depression is primarily predicted by lower level of life satisfaction (-2.894) and higher level of pessimism (6.176) and loneliness (3.550).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model is .478 for pessimism, .234 for loneliness and -.187 for life satisfaction, which indicates that a unit change in the predictor variable life satisfaction has a negative effect on criterion variable, while a unit change in the predictor variable pessimism and loneliness has a positive effect on the criterion variable.

As the statistical values given in the table are t = 6.176 for pessimism, t = 3.550 for loneliness and t = -2.894 for life satisfaction, we may conclude that t values are significant for all the predictors and the criterion variable (depression). The partial correlation for pessimism, loneliness and life satisfaction are .378, .228 and -.188 respectively, showing that the predictors significantly influence the degree of depression. The t value for life satisfaction indicates a negative relationship with the criterion variable. It means that life satisfaction negatively influences the degree of depression, while the t value for loneliness and pessimism indicates a positive relationship with the criterion variable which means that loneliness and pessimism positively influences the degree of depression.

From the results, it can be interpreted that loneliness, pessimism and life satisfaction have a significant relationship with depression, so the hypothesis that...
there would be a significant relationship of depression with loneliness, pessimism and life satisfaction among female old age people is accepted. While results show that optimism do not have any relationship with depression so the hypothesis that there would be a significant relationship of depression with optimism among female old age people is rejected.

Table 4: Stepwise Multiple Regression of loneliness, optimism, pessimism and life-satisfaction to predict depression among old age people living in rural areas:

| Model | R   | R Square | Adjusted R Square | Std. Error of the Estimate | R Square Change | F  
|-------|-----|----------|------------------|---------------------------|----------------|------
| 1     | .694$^*$ | .481     | .478             | 6.6276                    |                | .481 |
| 2     | .747$^*$ | .558     | .554             | 6.1287                    |                | .078 |

b. Predictors: (Constant), life satisfaction, loneliness

* Significant at .01 level, **significant at .05 level

The table 4.a model summary presents the R, R square and adjusted R$^2$ values for each step along with the amount of R$^2$ change. The table indicates that out of all four predictors loneliness, optimism, pessimism and life satisfaction, only two predictors life satisfaction and loneliness are significant among old age people living in rural area.

In the first step, life satisfaction is entered into the model. Of primary interest are the R$^2$ and the adjusted R$^2$ values which are .481 and .478 respectively for the predictor life satisfaction, which explain that the weighted combination of the predictor variable (life-satisfaction) explained approximately 48.1% of the variance of criterion variable (depression). Multiple correlation R is found to be .694. The value of R$^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .481.

In the second step, loneliness is entered into the model 2. The R$^2$ and adjusted R$^2$ values are .558 and .554 respectively for the predictor variable loneliness, which explain that the weighted combination of the predictor variable (loneliness), explained approximately 55.8% of the variance of criterion variable. Multiple correlation R is
found to be .747. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .078.

The prediction model contains two of the four predictors and is reached in two steps with no variable removed. With the help of ANOVA, we found that the model is statistically significant, $F (2, 192) = 121.427, p < .01$, and is accounted for approximately 55.8% of the variance of depression ($R^2 = .558$, adjusted $R^2 = .554$).

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>35.266</td>
<td>2.346</td>
<td>15.031</td>
<td>.000</td>
</tr>
<tr>
<td>Life</td>
<td>-.971</td>
<td>.072</td>
<td>-.654</td>
<td>-13.512</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>.254</td>
<td>.044</td>
<td>.281</td>
<td>5.805</td>
</tr>
</tbody>
</table>

Dependent variable: depression

Coefficient table 4.b provides the details of the results. The $t$ and sig (p) values give a rough indication of the impact of each predictor variable. As it is shown in the table that depression is negatively predicted by life satisfaction (-13.512) and positively by loneliness (5.805).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model is -.654 for life satisfaction and .281 for loneliness, which indicates that a unit change in the predictor variable life satisfaction has a negative effect on criterion variable, while a unit change in the predictor variable loneliness has a positive effect on the criterion variable depression.

As the statistical values given in the table are $t = -13.512$ for life satisfaction and $t = 5.805$ for loneliness, we may conclude that $t$ values are significant for both the predictors and the criterion variable (depression). The partial correlation for life satisfaction and loneliness is -.698 and .386 respectively, showing that the predictors significantly influence the degree of depression. The $t$ value for life satisfaction indicates a negative relationship with the criterion variable. It means that life satisfaction negatively influences the degree of depression, while the $t$ value for
loneliness indicates a positive relationship with the criterion variable which means that loneliness positively influences the degree of depression.

From the results, it can be interpreted that loneliness and life satisfaction have a significant relationship with depression, so the hypothesis that there would be a significant relationship of depression with loneliness and life satisfaction among people living in rural areas is accepted. On the other hand, results show that optimism and pessimism do not have any relationship with depression so the hypothesis that there would be a significant relationship of depression with optimism and pessimism among people living in rural areas is rejected.

Table 5: Stepwise Multiple Regression of loneliness, optimism, pessimism and life-satisfaction to predict depression among old age participants living in urban areas:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F (2, 202)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.819a</td>
<td>.671</td>
<td>.669</td>
<td>8.0788</td>
<td>.671</td>
<td>237.394*</td>
</tr>
<tr>
<td>2</td>
<td>.838b</td>
<td>.702</td>
<td>.699</td>
<td>7.7151</td>
<td>.030</td>
<td></td>
</tr>
</tbody>
</table>

b. Predictors: (Constant), Pessimism, life satisfaction
* Significant at .01 level, **significant at .05 level

The table 5.a model summary presents the R, R square and adjusted R^2 values for each step along with the amount of R^2 change. The table indicates that out of all four predictors loneliness, optimism, pessimism and life satisfaction, only two predictors pessimism and life satisfaction are found significant among old age people living in urban areas.

In the first step, pessimism is entered into the model 1. Of primary interest are the R^2 and the adjusted R^2 values which are .671 and .669 respectively for the predictor pessimism, which explain that the weighted combination of the predictor variable (pessimism) explained approximately 67.1% of the variance of criterion variable (depression). Multiple correlation R is found to be .819. The value of R^2
change, which is the actual contribution of the predictor variable to the criterion variable is .671.

In the second step, life satisfaction is entered into the model. The $R^2$ and adjusted $R^2$ values are .702 and .699 respectively for the predictor variable life satisfaction, which explain that the weighted combination of the predictor variable (life satisfaction), explained approximately 70.2% of the variance of criterion variable. Multiple correlation R is found to be .838. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .030.

The prediction model contains two of the four predictors and is reached in two steps with no variable removed. With the help of ANOVA, we find that the model is statistically significant, $F (2, 202) = 237.394$, $p< .01$, and is accounted for approximately 70.2% of the variance of depression ($R^2 = .702$, adjusted $R^2 = .699$).

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Correlations Partial</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>19.156</td>
<td>4.971</td>
<td>3.853</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Pessimism</td>
<td>.570</td>
<td>.059</td>
<td>.597</td>
<td>9.587</td>
<td>.000</td>
</tr>
<tr>
<td>Life satisfaction</td>
<td>-.577</td>
<td>.127</td>
<td>-.283</td>
<td>-4.537</td>
<td>.000</td>
</tr>
</tbody>
</table>

Dependent variable: depression

Coefficient table 5.b provides the details of the results. The t and sig (p) values give a rough indication of the impact of each predictor variable. As it is shown in the table that depression is predicted positively by pessimism (9.587) and negatively by life satisfaction (-4.537).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model is .597 for pessimism and -.283 for life satisfaction, which indicates that a unit change in the predictor variable pessimism has a positive effect on criterion variable, while a unit change in the predictor variable life satisfaction has a negative effect on the criterion variable.
As the statistical values given in the table are $t = 9.587$ for pessimism and $t = -4.537$ for life satisfaction, we may conclude that $t$ values are significant for both the predictors and the criterion variable (depression). The partial correlation for pessimism and life satisfaction is .559 and -.304 respectively, showing that the predictors significantly influence the degree of depression. The $t$ value for life satisfaction indicates a negative relationship with the criterion variable. It means that life satisfaction negatively influences the degree of depression, while the $t$ value for pessimism indicates a positive relationship with the criterion variable which means that pessimism positively influences the degree of depression.

From the results, it can be interpreted that pessimism and life satisfaction have a significant relationship with depression, so the hypothesis that there would be a significant relationship of depression with pessimism and life satisfaction among old age people living in urban areas is accepted. While results show that optimism and loneliness do not have any relationship with depression so the hypothesis that there would be a significant relationship of depression with optimism and loneliness among old age people living in urban areas is rejected.

Table 6: Stepwise Multiple Regression of loneliness, optimism, pessimism and life-satisfaction to predict depression among old age people with spouse alive:

<table>
<thead>
<tr>
<th>Table 6.a Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
</tbody>
</table>

d. Predictors: (Constant), life satisfaction, pessimism, optimism, loneliness  
* Significant at .01 level, ** significant at .05 level

The table 6.a model summary presents the $R$, $R^2$ square and adjusted $R^2$ values for each step along with the amount of $R^2$ change. The table indicates that out of all
four predictors loneliness, optimism, pessimism and life satisfaction, all predictors are found significant among old age people with spouse alive.

In the first step, life satisfaction is entered into the model 1. The $R^2$ and adjusted $R^2$ values are .406 and .403 respectively for the predictor variable life satisfaction, which explain that the weighted combination of the predictor variable (life satisfaction), explained approximately 40.6% of the variance of criterion variable. Multiple correlation $R$ is found to be .637. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .406.

In the second step, pessimism is entered into the model 2. Of primary interest are the $R^2$ and the adjusted $R^2$ values which are .499 and .494 respectively for the predictor pessimism, which explain that the weighted combination of the predictor variable (pessimism) explained approximately 49.9% of the variance of criterion variable (depression). Multiple correlation $R$ is found to be .706. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .093.

In the third step, optimism is entered into the model 3. The $R^2$ and adjusted $R^2$ values are .525 and .518 respectively for the predictor variable life optimism, which explain that the weighted combination of the predictor variable (optimism), explained approximately 52.5% of the variance of criterion variable. Multiple correlation $R$ is found to be .725. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .026.

In the fourth step, loneliness is entered into the model 4. The $R^2$ and adjusted $R^2$ values are .535 and .527 respectively for the predictor variable loneliness, which explain that the weighted combination of the predictor variable (loneliness), explained approximately 53.5% of the variance of criterion variable. Multiple correlation $R$ is found to be .732. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .010.

The prediction model contains four of the four predictors and is reached in four steps with no variable removed. With the help of ANOVA, we find that the model is statistically significant, $F (4, 221) = 63.665, p< .01$, and is accounted for approximately 53.5% of the variance of depression ($R^2 = .535$, adjusted $R^2 = .527$).
## Results and Discussion

Coefficient table 6.b provides the details of the results. The t and sig (p) values give a rough indication of the impact of each predictor variable. As it is shown in the table that depression is predicted negatively by life satisfaction (-8.012) and positively by pessimism (4.810), optimism (3.508) and loneliness (2.231).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model is -.476 for life satisfaction, .418 for pessimism, .227 for optimism and .137 for loneliness, which indicates that a unit change in the predictor variable life satisfaction has a negative effect on criterion variable, while a unit change in the predictor variable optimism, pessimism and loneliness has a positive effect on the criterion variable.

As the statistical values given in the table are t = -8.012 for life satisfaction, t = 4.810 for pessimism, t = 3.508 for optimism and t = 2.231 for loneliness. We may conclude that t values are significant for all the predictors and the criterion variable (depression). The partial correlation for life satisfaction, optimism, pessimism and loneliness are -.474, .308, .230 and .148 respectively, showing that the predictors significantly influence the degree of depression. The t value for life satisfaction indicates a negative relationship with the criterion variable. It means that life satisfaction negatively influences the degree of depression while the t value for optimism, pessimism and loneliness indicates a positive relationship with the criterion variable.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Correlations Partial</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.707</td>
<td>7.672</td>
<td>.092</td>
<td>.927</td>
<td></td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>-.730</td>
<td>.091</td>
<td>-.476</td>
<td>-8.012</td>
<td>.000</td>
</tr>
<tr>
<td>Pessimism</td>
<td>.466</td>
<td>.097</td>
<td>.418</td>
<td>4.810</td>
<td>.000</td>
</tr>
<tr>
<td>Optimism</td>
<td>.366</td>
<td>.104</td>
<td>.227</td>
<td>3.508</td>
<td>.001</td>
</tr>
<tr>
<td>Loneliness</td>
<td>.137</td>
<td>.062</td>
<td>.137</td>
<td>2.231</td>
<td>.027</td>
</tr>
</tbody>
</table>

Dependent variable: depression
variable which means that optimism, pessimism and loneliness positively influence the degree of depression.

From the results, it can be interpreted that loneliness, optimism, pessimism and life satisfaction have a significant relationship with depression, so the hypothesis that there would be a significant relationship of depression with loneliness, optimism, pessimism and life satisfaction among old age people with spouse alive is accepted.

Table 7: Stepwise Multiple Regression of loneliness, optimism, pessimism and life-satisfaction to predict depression among old age people with spouse not alive:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F       (2, 171)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.841a</td>
<td>.707</td>
<td>.705</td>
<td>7.4566</td>
<td>.707</td>
<td>250.252*</td>
</tr>
<tr>
<td>2</td>
<td>.863b</td>
<td>.745</td>
<td>.742</td>
<td>6.9730</td>
<td>.038</td>
<td></td>
</tr>
</tbody>
</table>

b. Predictors: (Constant), Pessimism, life satisfaction
* Significant at .01 level, **significant at .05 level

The table 7.a model summary presents the R, R square and adjusted R^2 values for each step along with the amount of R^2 change. The table indicates that out of all four predictors loneliness, optimism, pessimism and life satisfaction, only two predictors pessimism and life satisfaction are found significant.

In the first step, pessimism is entered into the model 1. Of primary interest are the R^2 and the adjusted R^2 values which are .707 and .705 respectively for the predictor pessimism, which explain that the weighted combination of the predictor variable (pessimism) explained approximately 70.7% of the variance of criterion variable (depression). Multiple correlation R is found to be .841. The value of R^2 change, which is the actual contribution of the predictor variable to the criterion variable is .707.

In the second step, life satisfaction is entered into the model 2. The R^2 and adjusted R^2 values are .745 and .742 respectively for the predictor variable life satisfaction, which explain that the weighted combination of the predictor variable
(life satisfaction), explained approximately 74.5% of the variance of criterion variable. Multiple correlation \( R \) is found to be .863. The value of \( R^2 \) change, which is the actual contribution of the predictor variable to the criterion variable is .038.

The prediction model contains two of the four predictors and is reached in two steps with no variable removed. With the help of ANOVA, we find that the model is statistically significant, \( F (2, 171) = 250.252, p< .01 \), and is accounted for approximately 74.5% of the variance of depression \( (R^2 = .745, \text{adjusted } R^2 = .742) \).

**Table- 7.b Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Correlations Partial</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>23.705</td>
<td>5.041</td>
<td>4.703</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Pessimism</td>
<td>.522</td>
<td>.059</td>
<td>.574</td>
<td></td>
<td>.558</td>
</tr>
<tr>
<td>Life satisfaction</td>
<td>-.666</td>
<td>.131</td>
<td>-.331</td>
<td>-.00</td>
<td>-.361</td>
</tr>
</tbody>
</table>

Dependent variable: depression

Coefficient table 7.b provides the details of the results. The \( t \) and \( \text{sig (p)} \) values give a rough indication of the impact of each predictor variable. As it is shown in the table that depression is predicted positively by pessimism (8.795) and negatively by life satisfaction (-5.068).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model is .574 for pessimism and -.331 for life satisfaction, which indicates that a unit change in the predictor variable pessimism has a positive effect on criterion variable, while a unit change in the predictor variable life satisfaction has a negative effect on the criterion variable.

As the statistical values given in the table are \( t = 8.795 \) for pessimism and \( t = -5.068 \) for life satisfaction, we may conclude that \( t \) values are significant for both the predictors and the criterion variable (depression). The partial correlation for pessimism is .558 and -.361 for life satisfaction, showing that the predictors significantly influence the degree of depression. The \( t \) value for life satisfaction
indicates a negative relationship with the criterion variable. It means that life satisfaction negatively influences the degree of depression, while the t value for pessimism indicates a positive relationship with the criterion variable which means that pessimism positively influences the degree of depression.

From the results, it can be interpreted that pessimism and life satisfaction have a significant relationship with depression, so the hypothesis that there would be a significant relationship of depression with pessimism and life satisfaction among old age people with spouse not alive is accepted. While results show that optimism and loneliness do not have any relationship with depression so the hypothesis that there would be a significant relationship of depression with optimism and loneliness among old age people with spouse not alive is rejected.

Table 8: Stepwise Multiple Regression of loneliness, optimism, pessimism and life-satisfaction to predict depression among old age people financially dependent on family:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F (4, 204)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.844*</td>
<td>.712</td>
<td>.711</td>
<td>6.2043</td>
<td>.712</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>.872b</td>
<td>.760</td>
<td>.758</td>
<td>5.6751</td>
<td>.048</td>
<td>186.964*</td>
</tr>
<tr>
<td>3</td>
<td>.884c</td>
<td>.781</td>
<td>.778</td>
<td>5.4371</td>
<td>.021</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>.886d</td>
<td>.786</td>
<td>.781</td>
<td>5.3934</td>
<td>.005</td>
<td></td>
</tr>
</tbody>
</table>

d. Predictors: (Constant), Pessimism, life-satisfaction, optimism, loneliness
* Significant at .01 level, **significant at .05 level

The table 8.a model summary presents the R, R square and adjusted R^2 values for each step along with the amount of R^2 change. The table indicates that out of all four predictors' loneliness, optimism, pessimism and life satisfaction, all predictors, are found significant among financially dependent old age respondents.

In the first step, pessimism is entered into the model. Of primary interest are the R^2 and the adjusted R^2 values which are .712 and .711 respectively for the
predictor pessimism, which explain that the weighted combination of the predictor variable (pessimism) explained approximately 71.2% of the variance of criterion variable (depression). Multiple correlation $R$ is .844. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .712.

In the second step, life satisfaction is entered into the model 2. The $R^2$ and adjusted $R^2$ values are .760 and .758 respectively for the predictor variable life satisfaction, which explain that the weighted combination of the predictor variable (life satisfaction), explained approximately 76.0% of the variance of criterion variable. Multiple correlation $R$ is found to be .872. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .048.

In the third step, optimism is entered into the model 3. The $R^2$ and adjusted $R^2$ values are .781 and .778 respectively for the predictor variable optimism, which explain that the weighted combination of the predictor variable (optimism), explained approximately 78.1% of the variance of criterion variable. Multiple correlation $R$ is found to be .884. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .021.

In the fourth step, loneliness is entered into the model 4. The $R^2$ and adjusted $R^2$ values are .786 and .781 respectively for the predictor variable loneliness, which explain that the weighted combination of the predictor variable (loneliness), explained approximately 78.6% of the variance of criterion variable. Multiple correlation $R$ is found to be .886. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .005.

The prediction model contains four of the four predictors and is reached in four steps with no variable removed. With the help of ANOVA, we found that the model is statistically significant, $F (4, 204) = 186.964, p< .01$, and is accounted for approximately 78.6% of the variance of depression ($R^2 = .786$, adjusted $R^2 = .781$).
Table 8.b coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Partial</td>
</tr>
<tr>
<td>(Constant)</td>
<td>43.001</td>
<td>7.623</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pessimism</td>
<td>.275</td>
<td>.079</td>
<td>.317</td>
<td>3.464</td>
<td>.001</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>-.706</td>
<td>.102</td>
<td>-.296</td>
<td>-6.912</td>
<td>.000</td>
</tr>
<tr>
<td>Optimism</td>
<td>-.342</td>
<td>.113</td>
<td>-.232</td>
<td>-3.022</td>
<td>.003</td>
</tr>
<tr>
<td>Loneliness</td>
<td>.131</td>
<td>.063</td>
<td>.182</td>
<td>2.081</td>
<td>.039</td>
</tr>
</tbody>
</table>

Dependent variable: depression

Coefficient table 8.b provides the details of the results. The t and sig (p) values give a rough indication of the impact of each predictor variable. It is shown in the table that depression is predicted positively by pessimism (3.464) and loneliness (2.081), while negatively by life satisfaction (-6.912) and optimism (-3.022).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model is .317 for pessimism, -.296 for life satisfaction, -.232 for optimism and .182 for loneliness, which indicates that a unit change in the predictor variable life satisfaction and optimism has a negative effect on criterion variable, while a unit change in the predictor variable pessimism, and loneliness has a positive effect on the criterion variable.

As the statistical values given in the table are t = 3.464 for pessimism, t = -6.912 for life satisfaction, t = -3.022 for optimism, and t = 2.081 for loneliness, we may conclude that t values are significant for all the predictors and the criterion variable (depression). The partial correlation for pessimism, life satisfaction, optimism and loneliness are .236, -.436, -.207 and .144 respectively, showing that the predictors significantly influence the degree of depression. The t value for life satisfaction and optimism indicates a negative relationship with the criterion variable. It means that life satisfaction and optimism negatively influences the degree of depression, while the t value for pessimism and loneliness indicates a positive
relationship with the criterion variable which means that pessimism and loneliness positively influences the degree of depression.

From the results, it can be interpreted that loneliness, optimism, pessimism and life satisfaction have a significant relationship with depression, so the hypothesis that there would be a significant relationship of depression with loneliness, optimism, pessimism and life satisfaction among old age financially dependent people is accepted.

Table 9: Stepwise Multiple Regression of loneliness, optimism, pessimism and life-satisfaction to predict depression among financially independent old age people:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.328a</td>
<td>.108</td>
<td>.103</td>
<td>8.0028</td>
<td>.108</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>.388b</td>
<td>.150</td>
<td>.141</td>
<td>7.8304</td>
<td>.043</td>
<td>16.647*</td>
</tr>
</tbody>
</table>

b. Predictors: (Constant), pessimism, optimism
* Significant at .01 level, **significant at .05 level

The table 9.a model summary presents the R, R square and adjusted R\(^2\) values for each step along with the amount of R\(^2\) change. The table indicates that out of all four predictors loneliness, optimism, pessimism and life satisfaction, only two predictors pessimism and optimism are significant among financially independent old age respondents.

In the first step, pessimism is entered into the model. Of primary interest are the R\(^2\) and the adjusted R\(^2\) values which are .108 and .103 respectively for the predictor pessimism, which explain that the weighted combination of the predictor variable (pessimism) explained approximately 10.8% of the variance of criterion variable (depression). Multiple correlation R is found to be .328. The value of R\(^2\) change, which is the actual contribution of the predictor variable to the criterion variable is .108.
In the second step, optimism is entered into the model 2. The $R^2$ and adjusted $R^2$ values are .150 and .141 respectively for the predictor variable optimism, which explain that the weighted combination of the predictor variable (optimism), explained approximately 15.0% of the variance of criterion variable. Multiple correlation $R$ is found to be .388. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .043.

The prediction model contains two of the four predictors and is reached in two steps with no variable removed. With the help of ANOVA, we found that the model is statistically significant, $F (2, 188) = 16.647$, $p < .01$, and is accounted for approximately 15% of the variance of depression ($R^2 = .150$, adjusted $R^2 = .141$).

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>$t$</th>
<th>Sig.</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Partial</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-9.955</td>
<td>6.716</td>
<td>-1.482</td>
<td>.140</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Pessimism</td>
<td>.516</td>
<td>.090</td>
<td>.476</td>
<td>5.760</td>
</tr>
<tr>
<td></td>
<td>Optimism</td>
<td>.274</td>
<td>.089</td>
<td>.254</td>
<td>3.069</td>
</tr>
</tbody>
</table>

Dependent variable: depression

Coefficient table 9.b provides the details of the results. The $t$ and sig (p) values give a rough indication of the impact of each predictor variable. As it is shown in the table that depression is predicted positively by pessimism (5.760) and optimism (3.069).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model, is .476 for pessimism and .254 for optimism, which indicates that a unit change in the predictor variable pessimism and optimism has a positive effect on criterion variable depression.

As the statistical values given in the table are $t = 5.760$ for pessimism and $t = 3.069$ for optimism, we may conclude that $t$ values are significant for both the predictors and the criterion variable (depression). The partial correlation for
pessimism is .558 and .218 for life satisfaction, showing that the predictors significantly influence the degree of depression.

From the results, it can be interpreted that pessimism and optimism have a significant relationship with depression, so the hypothesis that there would be a significant relationship of depression with pessimism and optimism among financially independent old age people is accepted. While results show that loneliness and life satisfaction do not have any relationship with depression so the hypothesis that there would be a significant relationship of depression with loneliness and life satisfaction among financially independent old age people is rejected.

**Table-10: Stepwise Multiple Regression of loneliness, optimism, pessimism and life-satisfaction to predict depression among old age participants living with their family:**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F (4, 255)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.793a</td>
<td>.629</td>
<td>.628</td>
<td>7.4878</td>
<td>.629</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>.833b</td>
<td>.694</td>
<td>.692</td>
<td>6.8190</td>
<td>.064</td>
<td>175.036*</td>
</tr>
<tr>
<td>3</td>
<td>.853c</td>
<td>.728</td>
<td>.725</td>
<td>6.4363</td>
<td>.034</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>.856d</td>
<td>.733</td>
<td>.729</td>
<td>6.3932</td>
<td>.005</td>
<td></td>
</tr>
</tbody>
</table>

d. Predictors: (Constant), Pessimism, life-satisfaction, loneliness, optimism

* Significant at .01 level, **significant at .05 level

The Table-10.a model summary presents the R, R square and adjusted $R^2$ values for each step along with the amount of $R^2$ change. The table indicates that out of all four predictors' loneliness, optimism, pessimism and life satisfaction, all four predictors are found significant among old age participants who were living with their family.

In the first step, pessimism is entered into the model 1. Of primary interest are the $R^2$ and the adjusted $R^2$ values which are .629 and .628 respectively for the predictor pessimism, which explain that the weighted combination of the predictor
variable (pessimism) explained approximately 62.9% of the variance of criterion variable (depression). Multiple correlation R is found to be .793. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .629.

In the second step, life satisfaction is entered into the model 2. The $R^2$ and adjusted $R^2$ values are .694 and .692 respectively for the predictor variable life satisfaction, which explain that the weighted combination of the predictor variable (life satisfaction), explained approximately 69.4% of the variance of criterion variable. Multiple correlation R is found to be .833. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .064.

In the third step, loneliness is entered into the model 3. The $R^2$ and adjusted $R^2$ values are .728 and .725 respectively for the predictor variable loneliness, which explain that the weighted combination of the predictor variable (loneliness), explained approximately 72.8% of the variance of criterion variable. Multiple correlation R is found to be .853. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .034.

In the fourth step, optimism is entered into the model 4. The $R^2$ and adjusted $R^2$ values are .733 and .729 respectively for the predictor variable optimism, which explain that the weighted combination of the predictor variable (optimism), explained approximately 73.3% of the variance of criterion variable. Multiple correlation R is found to be .856. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .005.

The prediction model contains four of the four predictors and is reached in four steps with no variable removed. With the help of ANOVA, we found that the model is statistically significant, $F(4, 255) = 175.036, p< .01$, and is accounted for approximately 73.3% of the variance of depression ($R^2 = .733$, adjusted $R^2 = .729$).
Table-10.b coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Partial</td>
</tr>
<tr>
<td>(Constant)</td>
<td>8.785</td>
<td>6.143</td>
<td>.154</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pessimism</td>
<td>.316</td>
<td>.074</td>
<td>.322</td>
<td>4.275</td>
<td>.000</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>-.777</td>
<td>.081</td>
<td>-.425</td>
<td>-9.602</td>
<td>.000</td>
</tr>
<tr>
<td>Loneliness</td>
<td>.337</td>
<td>.055</td>
<td>.388</td>
<td>6.108</td>
<td>.000</td>
</tr>
<tr>
<td>Optimism</td>
<td>.187</td>
<td>.089</td>
<td>.122</td>
<td>2.113</td>
<td>.036</td>
</tr>
</tbody>
</table>

Dependent variable: depression

Coefficient Table-10.b provides the details of the results. The t and s.g (p) values give a rough indication of the impact of each predictor variable. It is shown in the table that depression is predicted positively by pessimism (4.275), loneliness (6.108) and optimism (2.113) but negatively by life satisfaction (-9.602).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model is .322 for pessimism, -.425 for life satisfaction, .388 for loneliness and .122 for optimism, which indicates that a unit change in the predictor variable life satisfaction has a negative effect on criterion variable, while a unit change in the predictor variable pessimism, loneliness and optimism has a positive effect on the criterion variable.

As the statistical values given in the table are t = 4.275 for pessimism, t = -9.602 for life satisfaction, t = 6.108 for loneliness and t = 2.113 for optimism, we may conclude that t values are significant for all the predictors and the criterion variable (depression). The partial correlation for pessimism, life satisfaction, loneliness and optimism are .259, -.515, .357 and .131 respectively, showing that the predictors significantly influence the degree of depression. The t value for life satisfaction indicates a negative relationship with the criterion variable. It means that life satisfaction negatively influences the degree of depression, while the t value for pessimism, loneliness and optimism indicates a positive relationship with the criterion.
variable which means that pessimism, loneliness and optimism positively influence the degree of depression.

From the results, it can be interpreted that loneliness, optimism, pessimism and life satisfaction have a significant relationship with depression, so the hypothesis that there would be a significant relationship of depression with loneliness, optimism, pessimism and life satisfaction among people living with their family is accepted.

Table-11: Stepwise Multiple Regression of loneliness, optimism, pessimism and life-satisfaction to predict depression among old age people living without their family:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F (2, 137)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.700&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.490</td>
<td>.487</td>
<td>7.8916</td>
<td>.490</td>
<td>73.254*</td>
</tr>
<tr>
<td>2</td>
<td>.719&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.517</td>
<td>.510</td>
<td>7.7123</td>
<td>.026</td>
<td></td>
</tr>
</tbody>
</table>

<sup>b</sup> Predictors: (Constant), Pessimism, life satisfaction

* Significant at .01 level, ** significant at .05 level

The Table-11.a model summary presents the R, R square and adjusted R<sup>2</sup> values for each step along with the amount of R<sup>2</sup> change. The table indicates that out of all four predictors loneliness, optimism, pessimism and life satisfaction, only two predictors pessimism and life satisfaction are significant.

In the first step, pessimism is entered into the model. Of primary interest are the R<sup>2</sup> and the adjusted R<sup>2</sup> values which are .490 and .487 respectively for the predictor pessimism, which explain that the weighted combination of the predictor variable (pessimism) explained approximately 49.0% of the variance of criterion variable (depression). Multiple correlation R is found to be .700. The value of R<sup>2</sup> change, which is the actual contribution of the predictor variable to the criterion variable is .490.

In the second step, life satisfaction is entered into the model 2. The R<sup>2</sup> and adjusted R<sup>2</sup> values are .517 and .510 respectively for the predictor variable life
satisfaction, which explain that the weighted combination of the predictor variable (life satisfaction), explained approximately 51.7% of the variance of criterion variable. Multiple correlation R is found to be .719. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .026.

The prediction model contains two of the four predictors and is reached in two steps with no variable removed. With the help of ANOVA, we found that the model is statistically significant, $F (2, 137) = 73.254, p< .01$, and is accounted for approximately 51.7% of the variance of depression ($R^2 = .517$, adjusted $R^2 = .510$).

### Table-11.b Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>23.340</td>
<td>8.000</td>
<td>2.917</td>
<td>.004</td>
<td></td>
</tr>
<tr>
<td>Pessimism</td>
<td>.454</td>
<td>.089</td>
<td>.493</td>
<td>.000</td>
<td>.401</td>
</tr>
<tr>
<td>Life</td>
<td>-.591</td>
<td>.216</td>
<td>-.263</td>
<td>.007</td>
<td>-.228</td>
</tr>
<tr>
<td>Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent variable: depression

Coefficient Table-11.b provides the details of the results. The t and sig (p) values give a rough indication of the impact of each predictor variable. It is shown in the table that depression is predicted positively by pessimism (5.122) and negatively by life satisfaction (-2.738).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model is .493 for pessimism and -.263 for life satisfaction, which indicates that a unit change in the predictor variable pessimism has a positive effect on criterion variable, while a unit change in the predictor variable life satisfaction has a negative effect on the criterion variable.

As the statistical values given in the table are $t = 5.122$ for pessimism and $t = -2.738$ for life satisfaction, we may conclude that t values are significant for both the predictors and the criterion variable (depression). The partial correlation for
pessimism and life satisfaction is .401 and -.228 respectively, showing that the predictors significantly influence the degree of depression. The t value for life satisfaction indicates a negative relationship with the criterion variable. It means that life satisfaction negatively influences the degree of depression, while the t value for pessimism indicates a positive relationship with the criterion variable which means that pessimism positively influences the degree of depression.

From the results, it can be interpreted that pessimism and life satisfaction have a significant relationship with depression, so the hypothesis that there would be a significant relationship of depression with pessimism and life satisfaction among old age people living without their family is accepted. While results show that loneliness and optimism do not have any relationship with depression so the hypothesis that there would be a significant relationship of depression with loneliness and optimism among old age participants living without their family is rejected.

Table-12: Stepwise Multiple Regression of loneliness, optimism, pessimism and life-satisfaction to predict depression among old age illiterate people:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
<th>R Square Change</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.847*</td>
<td>.718</td>
<td>.715</td>
<td>7.5549</td>
<td>.718</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>.868b</td>
<td>.754</td>
<td>.749</td>
<td>7.0923</td>
<td>.036</td>
<td>111.186*</td>
</tr>
<tr>
<td>3</td>
<td>.874c</td>
<td>.764</td>
<td>.757</td>
<td>6.9791</td>
<td>.010</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at .01 level, **significant at .05 level

c. Predictors: (Constant), Pessimism, life satisfaction, loneliness

The Table-12.a model summary presents the R, R square and adjusted R² values for each step along with the amount of R² change. The table indicates that out of all four predictors loneliness, optimism, pessimism and life satisfaction, only three predictors pessimism, life satisfaction and loneliness are found significant among old age illiterate people.

In the first step, pessimism is entered into the model. Of primary interest are the R² and the adjusted R² values which are .718 and .715 respectively for the
predictor pessimism, which explain that the weighted combination of the predictor variable (pessimism) explained approximately 71.8% of the variance of criterion variable (depression). Multiple correlation R is found to be .847. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .718.

In the second step, life satisfaction is entered into the model 2. The $R^2$ and adjusted $R^2$ values are .754 and .749 respectively for the predictor variable life satisfaction, which explain that the weighted combination of the predictor variable (life satisfaction), explained approximately 75.4% of the variance of criterion variable. Multiple correlation R is found to be .868. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .036.

In the third step, loneliness is entered into the model 3. The $R^2$ and adjusted $R^2$ values are .764 and .757 respectively for the predictor variable loneliness, which explain that the weighted combination of the predictor variable (loneliness), explained approximately 76.4% of the variance of criterion variable. Multiple correlation R is found to be .874. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .010.

The prediction model contains three of the four predictors and is reached in three steps with no variable removed. With the help of ANOVA, we found that the model is statistically significant, $F (3, 103) = 111.186, p< .01$, and is accounted for approximately 76.4% of the variance of depression ($R^2 = .764$, adjusted $R^2 = .757$).

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>12.205</td>
<td>5.497</td>
<td>2.220</td>
<td>.029</td>
<td></td>
</tr>
<tr>
<td>Pessimism</td>
<td>.452</td>
<td>.113</td>
<td>.462</td>
<td>3.986</td>
<td>.000</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>-.504</td>
<td>.148</td>
<td>-.236</td>
<td>-3.417</td>
<td>.001</td>
</tr>
<tr>
<td>Loneliness</td>
<td>.211</td>
<td>.101</td>
<td>.242</td>
<td>2.098</td>
<td>.038</td>
</tr>
</tbody>
</table>

Dependent variable: depression
Chapter 4

Results and Discussion

Coefficient Table-12.b provides the details of the results. The t and sig (p) values give a rough indication of the impact of each predictor variable. As it is shown in the table that depression is predicted positively by pessimism (3.986) and loneliness (2.098) while negatively by life satisfaction (-3.417).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model is .462 for pessimism, -.236 for life satisfaction, and .242 for loneliness, which indicates that a unit change in the predictor variable life satisfaction has a negative effect on criterion variable, while a unit change in the predictor variable pessimism and loneliness has a positive effect on the criterion variable.

As the statistical values given in the table are t = 3.986 for pessimism, t = -3.417 for life satisfaction, t = 2.098 for loneliness, we may conclude that t values are significant for all the predictors and the criterion variable (depression). The partial correlation for pessimism, life satisfaction and loneliness are .366, -.319 and .202 respectively, showing that the predictors significantly influence the degree of depression. The t value for life satisfaction indicates a negative relationship with the criterion variable. It means that life satisfaction negatively influences the degree of depression, while the t value for pessimism and loneliness indicates a positive relationship with the criterion variable which means that pessimism and loneliness positively influences the degree of depression.

From the results, it can be interpreted that loneliness, pessimism and life satisfaction have a significant relationship with depression, so the hypothesis that there would be a significant relationship of depression with loneliness, pessimism and life satisfaction among old age illiterate people is accepted. While results show that optimism does not have any relationship with depression so the hypothesis that there would be a significant relationship of depression with optimism among old age illiterate people is rejected.
Table-13: Stepwise Multiple Regression of loneliness, optimism, pessimism and life-satisfaction to predict depression among old age less educated people:

Table-13.a Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.643&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.414</td>
<td>.410</td>
<td>8.1196</td>
<td>.414</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>.753&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.567</td>
<td>.562</td>
<td>6.9993</td>
<td>.153</td>
<td>87.418*</td>
</tr>
<tr>
<td>3</td>
<td>.787&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.620</td>
<td>.613</td>
<td>6.5818</td>
<td>.052</td>
<td></td>
</tr>
</tbody>
</table>

c. Predictors: (Constant), Pessimism, life satisfaction, loneliness

* Significant at .01 level, **significant at .05 level

The Table-13.a model summary presents the R, R square and adjusted $R^2$ values for each step along with the amount of $R^2$ change. The table indicates that out of all four predictors loneliness, optimism, pessimism and life satisfaction, only three predictors pessimism, life satisfaction and loneliness are found significant among less educated old age participants.

In the first step, pessimism is entered into the model. Of primary interest are the $R^2$ and the adjusted $R^2$ values which are .414 and .410 respectively for the predictor pessimism, which explain that the weighted combination of the predictor variable (pessimism) explained approximately 41.4% of the variance of criterion variable (depression). Multiple correlation R is found to be .643. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .414.

In the second step, life satisfaction is entered into the model 2. The $R^2$ and adjusted $R^2$ values are .567 and .562 respectively for the predictor variable life satisfaction, which explain that the weighted combination of the predictor variable (life satisfaction), explained approximately 56.7% of the variance of criterion variable. Multiple correlation R is found to be .753. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .153.

In the third step, loneliness is entered into the model 3. The $R^2$ and adjusted $R^2$ values are .620 and .613 respectively for the predictor variable loneliness, which
explain that the weighted combination of the predictor variable (loneliness), explained approximately 62% of the variance of criterion variable. Multiple correlation $R$ is found to be $.787$. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .052.

The prediction model contains three of the four predictors and is reached in three steps with no variable removed. With the help of ANOVA, we found that the model is statistically significant, $F (3, 161) = 87.418, p< .01$, and is accounted for approximately 62% of the variance of depression ($R^2 = .620$, adjusted $R^2 = .613$).

| Model         | Unstandardized Coefficients | Standardized Coefficients | t     | Sig. | Correlations
|---------------|-----------------------------|---------------------------|-------|------|---------------
| (Constant)    | 32.919                      |                           | 9.771 | .000 |               |
| Pessimism     | .406                        | .052                      | .450  | 7.798| .000          | .522          |
| Life Satisfaction | -1.134                    | .122                      | -.580 | -9.329| .000          | -.592         |
| Loneliness    | .337                        | .072                      | .410  | 4.712| .000          | .348          |

Dependent variable: depression

Coefficient Table-13.b provides the details of the results. The $t$ and sig (p) values give a rough indication of the impact of each predictor variable. It is shown in the table that depression is predicted positively by pessimism (7.798) and loneliness (4.712) while negatively by life satisfaction (-9.329).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model is .450 for pessimism, -.580 for life satisfaction, and .410 for loneliness, which indicates that a unit change in the predictor variable life satisfaction has a negative effect on criterion variable, while a unit change in the predictor variable pessimism and loneliness has a positive effect on the criterion variable.

As the statistical values given in the table are $t = 7.798$ for pessimism, $t = -9.329$ for life satisfaction, and $t = 4.712$ for loneliness, we may conclude that $t$ values
are significant for all the predictors and the criterion variable (depression). The partial correlation for pessimism, life satisfaction and loneliness are .522, -.592 and .348 respectively, showing that the predictors significantly influence the degree of depression. The t value for life satisfaction indicates a negative relationship with the criterion variable. It means that life satisfaction negatively influences the degree of depression, while the t value for pessimism and loneliness indicates a positive relationship with the criterion variable which means that pessimism and loneliness positively influence the degree of depression.

From the results, it can be interpreted that loneliness, pessimism and life satisfaction have a significant relationship with depression, so the hypothesis that there would be a significant relationship of depression with loneliness, pessimism and life satisfaction among old ageless educated people is accepted. While results show that optimism does not have any relationship with depression so the hypothesis that there would be no significant relationship of depression with optimism among old age less educated respondents is rejected.

Table-14: Stepwise Multiple Regression of loneliness, optimism, pessimism and life-satisfaction to predict depression among highly educated old age participants:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R^2</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F (3, 124)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.600a</td>
<td>.360</td>
<td>.355</td>
<td>6.8203</td>
<td>.360</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>.640b</td>
<td>.409</td>
<td>.400</td>
<td>6.5817</td>
<td>.049</td>
<td>31.076*</td>
</tr>
<tr>
<td>3</td>
<td>.655c</td>
<td>.429</td>
<td>.415</td>
<td>6.4946</td>
<td>.020</td>
<td></td>
</tr>
</tbody>
</table>

c. Predictors: (Constant), pessimism, optimism, life satisfaction
* Significant at .01 level, **significant at .05 level

The Table-14.a model summary presents the R, R square and adjusted R^2 values for each step along with the amount of R^2 change. The table indicates that out of all four predictors loneliness, optimism, pessimism and life satisfaction, only three
predictors pessimism-optimism and life satisfaction are significant among old age highly educated people.

In the first step, pessimism is entered into the model. Of primary interest are the $R^2$ and the adjusted $R^2$ values which are .360 and .355 respectively for the predictor pessimism, which explain that the weighted combination of the predictor variable (pessimism) explained approximately 36% of the variance of criterion variable (depression). Multiple correlation $R$ is found to be .600. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .360.

In the second step, loneliness is entered into the model 2. The $R^2$ and adjusted $R^2$ values are .409 and .400 respectively for the predictor variable loneliness, which explain that the weighted combination of the predictor variable (loneliness), explained approximately 40.9% of the variance of criterion variable. Multiple correlation $R$ is found to be .640. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .049.

In the third step, life satisfaction is entered into the model 3. The $R^2$ and adjusted $R^2$ values are .429 and .415 respectively for the predictor variable life satisfaction, which explain that the weighted combination of the predictor variable (life satisfaction), explained approximately 42.9% of the variance of criterion variable. Multiple correlation $R$ is found to be .655. The value of $R^2$ change, which is the actual contribution of the predictor variable to the criterion variable is .020.

The prediction model contains three of the four predictors and is reached in three steps with no variable removed. With the help of ANOVA, we found that the model is statistically significant, $F (3, 124) = 31.076, p< .01$, and is accounted for approximately 42.9% of the variance of depression ($R^2 = .429$, adjusted $R^2= .415$).
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Results and Discussion

Table-14.b coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Partial</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-20.839</td>
<td>10.278</td>
<td></td>
<td>-2.028</td>
<td>.045</td>
</tr>
<tr>
<td>Pessimism</td>
<td>1.036</td>
<td>.123</td>
<td>.660</td>
<td>8.443</td>
<td>.000</td>
</tr>
<tr>
<td>Optimism</td>
<td>.433</td>
<td>.123</td>
<td>.269</td>
<td>3.536</td>
<td>.001</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>-.434</td>
<td>.207</td>
<td>-.154</td>
<td>-2.092</td>
<td>.038</td>
</tr>
</tbody>
</table>

Dependent variable: depression

Coefficient Table-14.b provides the details of the results. The t and sig (p) values give a rough indication of the impact of each predictor variable. It is shown in the table that depression is predicted positively by pessimism (8.443) and optimism (3.536) while negatively by life satisfaction (-2.092).

The standard beta coefficient, which gives a measure of the contribution of each predictor variable to the model is .660 for pessimism, .269 for optimism and -.154 for life satisfaction, which indicates that a unit change in the predictor variable life satisfaction has a negative effect on criterion variable, while a unit change in the predictor variable pessimism and optimism has a positive effect on the criterion variable.

As the statistical values given in the table are t = 8.443 for pessimism, 3.536 for optimism and t = -2.092 for life satisfaction, we may conclude that t values are significant for all the predictors and the criterion variable (depression). The partial correlation for optimism, pessimism and life satisfaction are .604, .303 and -.185 respectively, showing that the predictors significantly influence the degree of depression. The t value for life satisfaction indicates a negative relationship with the criterion variable. It means that life satisfaction negatively influences the degree of depression, while the t value for pessimism and optimism indicates a positive relationship with the criterion variable which means that pessimism and optimism positively influence the degree of depression.
From the results, it can be interpreted that optimism, pessimism and life satisfaction have a significant relationship with depression, so the hypothesis that there would be a significant relationship of depression with optimism, pessimism and life satisfaction among old age highly educated people is accepted. While results show that loneliness does not have any relationship with depression so the hypothesis that there would be a significant relationship of depression with loneliness among old age highly educated people is rejected.
Table-15: Showing means difference between male and female old age participants on depression:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t (398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Male</td>
<td>167</td>
<td>25.826</td>
<td>8.2074</td>
<td>1.51''</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>233</td>
<td>27.674</td>
<td>14.1188</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above table-15 shows a comparison of male and female old age participants on the variable depression. We can see that the mean score for male old age participants M= 25.826 (SD= 8.2074) is lower than the mean score for female old age participants M= 27.674 (SD= 14.1188). The statistical value given in the table is t= 1.517 which is showing an insignificant difference (p<.130) between the two groups. We can conclude that an insignificant difference is found between male and female old age groups in terms of depression t (398) = 1.517, p<.130. The hypothesis that there would be no significant difference between male and female old age participants with regard to depression is accepted by the results.
Table-16: Showing means difference between male and female old age participants on loneliness:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>167</td>
<td>40.156</td>
<td>10.8860</td>
<td></td>
</tr>
<tr>
<td>Loneliness</td>
<td>Female</td>
<td>233</td>
<td>45.888</td>
<td>15.8817</td>
<td>4.034*</td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above table-16 shows a comparison of male and female old age groups on the variable loneliness. We can see that the mean score for female old age participants M= 45.888 (SD= 15.8817) is higher than the mean score for male old age participants M= 40.156 (SD= 10.8860). The statistical value given in the table is t= 4.034 which is showing a significant difference (p<.01) between the two groups. We can conclude that a significant difference is found between male and female old age groups in terms of loneliness, t (398) = 4.034, p<.01. The results reject the hypothesis about no significant difference between male and female old age participants with regard to loneliness.
Table-17: Showing means difference between male and female old age participants on optimism:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>167</td>
<td>49.515</td>
<td>6.2555</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>233</td>
<td>49.163</td>
<td>9.9866</td>
<td>.402</td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-17 shows a comparison of male and female old age participants groups on the variable optimism. We can see that the mean score for male old age participants M= 49.515 (SD= 6.2555) is lower than the mean score for female old age participants M= 49.163 (SD= 9.9866). The statistical value given in the table s t= .402 which is showing an insignificant difference (p<.688) between the two groups. We can conclude that an insignificant difference is found between male and female groups in terms of optimism, t (398) = .402, p<.688. The hypothesis that there would be no significant difference between male and female old age participants with regard to optimism is accepted.
Table-18: Showing means difference between male and female old age participants on pessimism:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t (398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pessimism</td>
<td>Male</td>
<td>167</td>
<td>34.096</td>
<td>4.9091</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>233</td>
<td>37.798</td>
<td>15.5809</td>
<td>2.966*</td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-18 shows a comparison of male and female old age participants on the variable pessimism. We can see that the mean score for male old age participants M= 34.096 (SD= 4.9091) is lower than the mean score for female old age participants M= 37.798 (SD= 15.5809). The statistical value given in the table is t= 2.966 which is showing a significant difference (p<.01) between the two groups. We can conclude that a significant difference is found between male and female old age groups in terms of pessimism, t (398) = 2.966, p<.01. The results indicate to the rejection of the hypothesis that there would be no significant difference between male and female old age participants with regard to pessimism.
Table-19: Showing means difference between male and female old age participants on life satisfaction:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t (398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life satisfaction</td>
<td>Male</td>
<td>167</td>
<td>19.269</td>
<td>6.1364</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>233</td>
<td>22.884</td>
<td>6.6468</td>
<td>5.537*</td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-19 shows a comparison of male and female old age participants groups on the variable life satisfaction. We can see that the mean score for male old age participants $M = 19.269$ (SD = 6.1364) is lower than the mean score for female old age participants $M = 22.884$ (SD = 6.6468). The statistical value given in the table is $t = 5.537$ which is showing a significant difference ($p < .01$) between the two groups. We can conclude that a significant difference is found between male and female groups in terms of life satisfaction, $t (398) = 5.537$, $p < .01$. The hypothesis that there would be no significant difference between male and female old age participants with regard to life satisfaction is rejected by the results.
Table-20: Showing means difference between rural and urban old age participants on depression

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t (398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Rural</td>
<td>195</td>
<td>25.169</td>
<td>9.175</td>
<td>2.835*</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>205</td>
<td>28.551</td>
<td>14.0525</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level. **significant at .05 level, NS

Above Table-20 shows a comparison of rural and urban old age groups on the variable depression. We can see that the mean score for rural group is M= 25.169 (SD= 9.1757) which is higher than the mean score for urban group M= 28.551 (SD= 14.0525). The statistical value given in the table is t= 2.835 which is showing a significant difference (p<.01) between the two groups. we can conclude that a significant difference is found between rural and urban old age participants in terms of depression, t (398) = 2.835, p<.01 which shows a rejection of the hypothesis that there would be no significant difference between rural and urban old age participants groups with regard to depression.
Table-21: Showing means difference between rural and urban old age participants on loneliness

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loneliness</td>
<td>Rural</td>
<td>195</td>
<td>36.774</td>
<td>10.1448</td>
<td>10.322*</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>205</td>
<td>49.888</td>
<td>14.7253</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-21 shows a comparison of rural and urban old age participants on the variable loneliness. We can see that the mean score for rural group is M= 36.774 (SD= 10.1448) which is lower than the mean score for urban group M= 49.888 (SD= 14.7253). The statistical value given in the table is t= 10.322 which is showing a significant difference (p<.01) between the two groups. We can conclude that a significant difference is found between rural and urban groups in terms of loneliness, t (398) = 10.322, p<.01. The results indicate to the rejection of the formulated hypothesis, that is there would be no significant difference between rural and urban old age participants with regard to loneliness.
Table-22: Showing means difference between rural and urban old age participants on optimism:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t (398)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>195</td>
<td>50.892</td>
<td>6.2428</td>
<td></td>
</tr>
<tr>
<td>Optimism</td>
<td>Urban</td>
<td>205</td>
<td>47.805</td>
<td>10.1779</td>
<td>3.635*</td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-22 shows a comparison of rural and urban old age participants on the variable optimism. We can see that the mean score for rural group is M=50.892 (SD= 6.2428) which is higher than the mean score for urban group M= 47.805 (SD= 10.1779). The statistical value given in the table is t= 3.635 which is showing a significant difference (p<.01) between the two groups. We can conclude that a significant difference is found between rural and urban groups in terms of optimism, t (398) = 3.635, p<.01. The hypothesis that there would be no significant difference between rural and urban old age participants groups with regard to optimism is rejected by the results.
Table-23: Showing means difference between rural and urban old age participants on pessimism:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t (398)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>195</td>
<td>32.908</td>
<td>8.2438</td>
<td></td>
</tr>
<tr>
<td>Pessimism</td>
<td>Urban</td>
<td>205</td>
<td>39.434</td>
<td>14.7220</td>
<td>5.433*</td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-23 shows a comparison of rural and urban old age participants groups on the variable pessimism. We can see that the mean score for rural group is $M= 32.908$ (SD= 8.2438) which is lower than the mean score for urban group $M= 39.434$ (SD= 14.7220). The statistical value given in the table is $t= 5.433$ which is showing a significant difference ($p<.01$) between the two groups. We can conclude that a significant difference is found between rural and urban groups in terms of pessimism, $t (398) = 5.433$, $p<.01$ and the hypothesis that there would be no significant difference between rural and urban old age participants groups with regard to pessimism is rejected.
Table-24: Showing means difference between rural and urban old age participants on life satisfaction:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t (398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Satisfaction</td>
<td>Rural</td>
<td>195</td>
<td>20.021</td>
<td>6.1811</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>205</td>
<td>22.663</td>
<td>6.8820</td>
<td>4.034*</td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-24 shows a comparison of rural and urban old age participants groups on the variable life satisfaction. We can see that the mean score for rural group is $M=20.021$ (SD= 6.1811) which is lower than the mean score for urban group $M=22.663$ (SD= 6.882). The statistical value given in the table is $t= 4.034$ which is showing a significant difference ($p<.01$) between the two groups. We can conclude that a significant difference is found between rural and urban groups in terms of life satisfaction, $t (398) = 4.034$, $p<.01$. The results reject the hypothesis that is there would be no significant difference between rural and urban old age participants groups with regard to life satisfaction.
Table-25: Showing mean difference between old age participants with spouse alive and old age participants with spouse not alive on depression:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Spouse alive</td>
<td>226</td>
<td>24.664</td>
<td>10.0014</td>
<td>-4.335*</td>
</tr>
<tr>
<td></td>
<td>Spouse not alive</td>
<td>174</td>
<td>29.810</td>
<td>13.7380</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-25 shows a comparison of old age participants with spouse alive and old age participants with spouse not alive groups on the variable depression. We can see that the mean score for spouse alive group is M= 24.664 (SD= 10.0014) which is lower than the mean score for spouse not alive group M= 29.810 (SD= 13.7380). The statistical value given in the table is t= -4.335 which is showing a significant difference (p<.01) between the two groups. We can conclude that a significant difference is found between spouse alive and spouse not alive old age groups in terms of depression, t (398) = 4.335, p<.01. The hypothesis that there would be no significant difference between old age participants with spouse alive and old age participants with spouse not alive groups with regard to depression is rejected.
Table-26: Showing mean difference between old age participants with spouse alive and old age participants with spouse not alive on loneliness:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>( t )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loneliness</td>
<td>Spouse alive</td>
<td>226</td>
<td>36.646</td>
<td>10.0008</td>
<td>13.043*</td>
</tr>
<tr>
<td></td>
<td>Spouse not alive</td>
<td>174</td>
<td>52.391</td>
<td>14.1240</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-26 shows a comparison of old age participants with spouse alive and old age participants with spouse not alive groups on the variable loneliness. We can see that the mean score for spouse alive group is \( M = 36.646 \) (SD = 10.0008) which is lower than the mean score for spouse not alive group \( M = 52.391 \) (SD = 14.1240). The statistical value given in the table is \( t = 13.043 \) which is showing a significant difference \( (p < .01) \) between the two groups. We can conclude that a significant difference is found between spouse alive and spouse not alive groups in terms of loneliness, \( t (398) = 13.043, p < .01 \). The results indicate that the hypothesis that there would be no significant difference between old age participants with spouse alive and old age participants with spouse not alive groups with regard to loneliness is rejected.
Table-27: Showing mean difference between old age participants with spouse alive and old age participants with spouse not alive groups on optimism:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t (df=398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimism</td>
<td>Spouse alive</td>
<td>226</td>
<td>50.659</td>
<td>6.2049</td>
<td>3.622*</td>
</tr>
<tr>
<td></td>
<td>Spouse not alive</td>
<td>174</td>
<td>47.557</td>
<td>10.7620</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-27 shows a comparison of old age participants with spouse alive and old age participants with spouse not alive groups on the variable optimism. We can see that the mean score for spouse alive group is $M= 50.659$ (SD= 6.2049) which is higher than the mean score for spouse not alive group $M= 47.557$ (SD= 10.7620). The statistical value given in the table is $t= 3.622$ which is showing a significant difference ($p<.01$) between the two groups. We can conclude that a significant difference is found between spouse alive and spouse not alive groups in terms of optimism, $t (398) = 3.622$, $p<.01$. The hypothesis that there would be no significant difference between old age participants with spouse alive and old age participants with spouse not alive groups with regard to optimism is rejected by the results.
Table-28: Showing mean difference between old age participants with spouse alive and old age participants with spouse not alive on pessimism:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pessimism</td>
<td>Spouse alive</td>
<td>226</td>
<td>33.451</td>
<td>8.9646</td>
<td>5.308*</td>
</tr>
<tr>
<td></td>
<td>Spouse not alive</td>
<td>174</td>
<td>39.891</td>
<td>15.1098</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-28 shows a comparison of old age participants with spouse alive and old age participants with spouse not alive groups on the variable pessimism. We can see that the mean score for spouse alive group is M = 33.451 (SD = 8.9646) which is lower than the mean score for spouse not alive group M = 39.891 (SD = 15.1098). The statistical value given in the table is t = 5.308 which is showing a significant difference (p<.01) between the two groups. We can conclude that a significant difference is found between spouse alive and spouse not alive groups in terms of pessimism, t (398) = 5.308, p<.01. The results indicate to the rejection of hypothesis that is there would be no significant difference between old age participants with spouse alive and old age participants with spouse not alive groups with regard to pessimism.
Table-29: Showing mean difference between old age participants with spouse alive and old age participants with spouse not alive on life satisfaction:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t(398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life</td>
<td>Spouse alive</td>
<td>226</td>
<td>20.827</td>
<td>6.5219</td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Spouse not alive</td>
<td>174</td>
<td>22.086</td>
<td>6.8196</td>
<td>1.876</td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-29 shows a comparison of old age participants with spouse alive and old age participants with spouse not alive groups on the variable life satisfaction. We can see that the mean score for spouse alive group is $M = 20.827$ (SD= 6.5219) which is lower than the mean score for spouse not alive group $M = 22.086$ (SD= 6.8196). The statistical value given in the table is $t = 1.876$ which is showing an insignificant difference ($p<.061$) between the two groups. We can conclude that an insignificant difference is found between spouse alive and spouse not alive groups in terms of life satisfaction, $t (398) = 1.876, p<.061$. So the hypothesis that there would be no significant difference between old age participants with spouse alive and old age participants with spouse not alive groups with regard to life satisfaction is accepted.
Chapter 4

Results and Discussion

Table 30: Showing mean difference between old age participants financially dependent on family and old age participants financially independent of family for depression:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t   (398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Financially Dependent</td>
<td>209</td>
<td>33.043</td>
<td>11.5377</td>
<td>12.618*</td>
</tr>
<tr>
<td></td>
<td>Financially Independent</td>
<td>191</td>
<td>20.183</td>
<td>8.4507</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table 30 shows a comparison of financially dependent and financially independent old age participants on the variable depression. We can see that the mean score for financially dependent on family group is $M = 33.043$ (SD = 11.5377) which is very much higher than the mean score for independent of family group $M = 20.183$ (SD = 8.4507). The statistical value given in the table is $t = 12.618$ which is showing a significant difference $(p<.01)$ between the two groups. We can conclude that a significant difference is found between financially dependent and financially independent old age groups in terms of depression, $t (398) = 12.618$, $p<.01$. The hypothesis that there would be no significant difference between financially dependent old age participants and financially independent old age participants with regard to depression is rejected by the results.
Table-31: Showing mean difference between old age participants financially dependent on family and old age participants financially independent of family groups on loneliness:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Financially</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>loneliness</td>
<td>Dependent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financially</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loneliness</td>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financially</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>loneliness</td>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-31 shows a comparison of financially dependent and financially independent old age participants on the variable loneliness. We can see that the mean score for financially dependent group is M= 44.842 (SD= 15.9636) which is higher than the mean score for financially independent group M= 42.021 (SD= 12.0494). The statistical value given in the table is t= 1.981 which is showing a significant difference (p<.05) between the two groups. We can conclude that a significant difference is found between financially dependent and financially independent old age groups in terms of loneliness, t (398) = 1.981, p<.05. The results indicate to the rejection of hypothesis that is there would be no significant difference between financially dependent and financially independent old age participants groups with regard to loneliness.
Table-32: Showing mean difference between old age participants financially dependent on family and old age participants financially independent of family groups on optimism:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>(398)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Financially</td>
<td>209</td>
<td>45.823</td>
<td>7.8196</td>
<td>9.332*</td>
<td></td>
</tr>
<tr>
<td>Optimism</td>
<td>Dependent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financially</td>
<td>191</td>
<td>53.126</td>
<td>7.8153</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-32 shows a comparison of financially dependent and financially independent old age groups on the variable optimism. We can see that the mean score for financially dependent old age group is M= 45.823 (SD= 7.8196) which is very much lower than the mean score for financially independent group M= 53.126 (SD= 7.8153). The statistical value given in the table is t= 9.332 which is showing a significant difference (p<.01) between the two groups. We can conclude that a significant difference is found between financially dependent and financially independent old age people in terms of optimism, t (398)= 9.332, p<.01. The hypothesis that there would be no significant difference between financially dependent old age participants and financially independent old age participants with regard to optimism is rejected.
Table-33: Showing mean difference between old age participants financially dependent on family and old age participants financially independent of family groups on pessimism:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>( t ^1 ) (398)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Financially</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pessimism</td>
<td>Dependent</td>
<td>209</td>
<td>41.785</td>
<td>13.2819</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financially</td>
<td>191</td>
<td>30.199</td>
<td>7.8023</td>
<td>10.511*</td>
</tr>
<tr>
<td></td>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-33 shows a comparison of financially dependent and financially independent old age people on the variable pessimism. We can see that the mean score for financially dependent old age participants is \( M = 41.785 \) (SD= 13.2819) which is very much higher than the mean score for financially independent group \( M = 30.199 \) (SD= 7.8023). The statistical value given in the table is \( t = 10.511 \) which is showing a significant difference \( (p < .01) \) between the two groups. We can conclude that a significant difference is found between financially dependent and financially independent old age groups in terms of pessimism, \( t (398) = 10.511, p < .01 \). The hypothesis that there would be no significant difference between financially dependent and financially independent old age participants with regard to pessimism is rejected.
Table-34: Showing mean difference between old age participants financially dependent on family and old age participants financially independent of family groups on life satisfaction:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t  (398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Satisfaction</td>
<td>Financially Dependent</td>
<td>209</td>
<td>16.498</td>
<td>4.8349</td>
<td>23.730*</td>
</tr>
<tr>
<td></td>
<td>Financially Independent</td>
<td>191</td>
<td>26.712</td>
<td>3.6253</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-34 shows a comparison of financially dependent and financially independent old age groups on the variable life satisfaction. We can see that the mean score for financially dependent old age group is $M= 16.498$ (SD= 4.8349) which is very much lower than the mean score for financially independent group $M= 26.712$ (SD= 3.6253). The statistical value given in the table is $t= 23.730$ which is showing a significant difference ($p<.01$) between the two groups. We can conclude that a significant difference is found between financially dependent and financially independent old age groups in terms of life satisfaction, $t$ (398)= 23.730, $p<.01$. The results indicate the rejection of hypothesis that there would be no significant difference between financially dependent old age participants and financially independent old age participants groups with regard to life satisfaction.
Table-35: Showing means difference between old age participants living with family and living without family groups on depression:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t (398)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Living With Family</td>
<td>260</td>
<td>28.485</td>
<td>12.2772</td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.638*</td>
</tr>
<tr>
<td></td>
<td>Living Without Family</td>
<td>140</td>
<td>23.964</td>
<td>11.0143</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-35 shows a comparison of old age people living with family and living without family groups on the variable depression. We can see that the mean score for living with family group is M= 28.485 (SD= 12.2772) which is higher than the mean score for living without family group M= 23.964 (SD= 11.0143). The statistical value given in the table is t= 3.638 which is showing a significant difference (p<.01) between the two groups. We can conclude that a significant difference is found between living with family and living without family old age groups in terms of depression, t (398) = 3.638, p<.01. The hypothesis that there would be no significant difference between old age participants living with family and living without their family groups with regard to depression is rejected by the results.
Table-36: Showing means difference between old age participants living with family and living without family groups on loneliness:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t  (398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loneliness</td>
<td>Living With Family</td>
<td>260</td>
<td>41.269</td>
<td>14.1185</td>
<td>4.342*</td>
</tr>
<tr>
<td></td>
<td>Living Without Family</td>
<td>140</td>
<td>47.629</td>
<td>13.6973</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-36 shows a comparison of old age participants living with family and living without family groups on the variable loneliness. We can see that the mean score for living with family group is $M= 41.269$ (SD= 14.1185) which is lower than the mean score for living without family group $M= 47.629$ (SD= 13.6973). The statistical value given in the table is $t= 4.342$ which is showing a significant difference ($p<.01$) between the two groups. We can conclude that a significant difference is found between the two groups in terms of loneliness, $t (398) = 4.342$, $p<.01$. The hypothesis that there would be no significant difference between old age participants living with family and living without their family groups with regard to loneliness is rejected by the results.
Table-37: Showing means difference between old age participants living with family and living without family groups on optimism:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>(398)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Living With</td>
<td>260</td>
<td>48.40</td>
<td>8.03</td>
<td>2.90</td>
<td></td>
</tr>
<tr>
<td>Optimism</td>
<td>Family</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Living Without</td>
<td>140</td>
<td>51.00</td>
<td>9.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-37 shows a comparison of living with family and living without family groups on the variable optimism. We can see that the mean score for living with family group is M= 48.400 (SD= 8.0348) which is lower than the mean score for living without family group M= 51.000 (SD= 9.4107). The statistical value given in the table is t= 2.904 which is showing a significant difference (p<.01) between the two groups. We can conclude that a significant difference is found between the two groups in terms of optimism, t (398) = 2.904, p<.01. The hypothesis that there would be no significant difference between old age participants living with family and old age participants living without their family groups with regard to optimism is rejected by the shown results.
Table-38: Showing means difference between old age participants living with family and living without family groups on pessimism:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t (398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pessimism</td>
<td>Living With Family</td>
<td>260</td>
<td>37.512</td>
<td>12.5149</td>
<td>2.784*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>140</td>
<td>33.914</td>
<td>11.9691</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-38 shows a comparison of old age respondents living with family and living without family groups on the variable pessimism. We see that the mean score for living with family group is $M=37.512$ (SD= 12.5149) which is higher than the mean score for living without family group $M=33.914$ (SD= 11.9691). The statistical value given in the table is $t=2.784$ which is showing a significant difference ($p<.01$) between the two groups. We can conclude that a significant difference is found between living with family and living without family groups in terms of pessimism, $t(398)=2.784$, $p<.01$. The hypothesis that there would be no significant difference between old age participants living with family and old age participants living without their family groups with regard to pessimism is rejected.
Table-39: Showing means difference between old age participants living with family and living without family groups on life satisfaction:

<table>
<thead>
<tr>
<th>Test variable</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>(398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Satisfaction</td>
<td>Living With Family</td>
<td>260</td>
<td>19.446</td>
<td>6.7103</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Living Without Family</td>
<td>140</td>
<td>24.957</td>
<td>4.9061</td>
<td>8.561*</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

Above Table-39 shows a comparison of living with family and living without family participants on the variable life satisfaction. We can see that the mean score for living with family group is M= 19.446 (SD= 6.7103) which is lower than the mean score for living without family group M= 24.957 (SD= 4.9061). The statistical value given in the table is t= 9.381 which is showing a significant difference (p<.01) between the two groups. We can conclude that a significant difference is found between living with family and living without family respondents in terms of life satisfaction, t (398) = 8.561, p<.01. The results indicate to the rejection of hypothesis that is there would be no significant difference between old age participants living with family and old age participants living without their family groups with regard to life satisfaction.
Table-40: ‘Descriptive Statistics Table’ with F value as a result of ANOVA analysis on the variables Depression, Loneliness, Optimism-Pessimism and Life Satisfaction among Illiterate, Less Educated and Highly Educated old age participants:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>F (2, 397)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Illiterate</td>
<td>107</td>
<td>31.822</td>
<td>14.1633</td>
<td>36.634*</td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td>165</td>
<td>28.909</td>
<td>10.5737</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td>128</td>
<td>20.203</td>
<td>8.494</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>400</td>
<td>26.902</td>
<td>12.0318</td>
<td></td>
</tr>
<tr>
<td>Loneliness</td>
<td>Illiterate</td>
<td>107</td>
<td>48.664</td>
<td>16.2260</td>
<td>10.877*</td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td>165</td>
<td>40.679</td>
<td>12.8775</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td>128</td>
<td>42.805</td>
<td>13.1778</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>400</td>
<td>43.495</td>
<td>14.2820</td>
<td></td>
</tr>
<tr>
<td>Optimism</td>
<td>Illiterate</td>
<td>107</td>
<td>45.075</td>
<td>10.2917</td>
<td>49.057*</td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td>165</td>
<td>47.921</td>
<td>7.4137</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td>128</td>
<td>54.641</td>
<td>5.2717</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>400</td>
<td>49.310</td>
<td>8.6197</td>
<td></td>
</tr>
<tr>
<td>Pessimism</td>
<td>Illiterate</td>
<td>107</td>
<td>42.598</td>
<td>14.4743</td>
<td>54.223*</td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td>165</td>
<td>38.345</td>
<td>11.7118</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td>128</td>
<td>28.250</td>
<td>5.4151</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>400</td>
<td>36.252</td>
<td>12.4308</td>
<td></td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>Illiterate</td>
<td>107</td>
<td>19.654</td>
<td>6.6277</td>
<td>134.051*</td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td>165</td>
<td>17.782</td>
<td>5.4067</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td>128</td>
<td>27.445</td>
<td>3.0191</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>400</td>
<td>21.375</td>
<td>6.6739</td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level of significance
Table-41: ‘Multiple Comparison Table’ to compare illiterate, less educated and highly educated old age groups on depression:

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Comparing Groups</th>
<th>Mean Difference</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Illiterate</td>
<td>2.9133</td>
<td>1.3756</td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Illiterate</td>
<td>11.6193**</td>
<td>1.4517</td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td>8.7060**</td>
<td>1.3054</td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

As we see from the descriptive table that overall there is a significant difference between the three groups on depression $F (2, 397) = 36.634, p< .01$, the Tukey Post Hoc test reveals that illiterate group significantly differ from the highly educated group ($M\sim M = 11.6193$, $p< .05$). We can also see that less educated group is significantly different from the highly educated group ($M\sim M = 8.7060$, $p< .05$) but illiterate and less educated groups do not differ significantly ($M\sim M = 2.9133$, $p< .08$) on depression. The results reject the hypothesis that there would be no significant difference between illiterate and highly educated groups as well as less educated and highly educated groups with regard to depression is rejected; while the hypothesis that there would be no significant difference between illiterate and less educated groups with regard to depression is accepted.
Table-42: ‘Multiple Comparison Table’ to compare illiterate, less educated and highly educated old age groups on loneliness:

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Comparing Groups</th>
<th>Mean Difference</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Illiterate</td>
<td>7.9848**</td>
<td>1.7304</td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loneliness</td>
<td>Illiterate</td>
<td>5.8589**</td>
<td>1.8261</td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td>2.1259</td>
<td>1.6420</td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

As we see from the descriptive table that overall there is a significant difference between the three groups on loneliness $F(2, 397) = 10.877$, $p< .01$, the Tukey Post Hoc test reveals that the illiterate group is significantly different from the less educated group ($M_{illiterate} - M_{less educated} = 7.9848$, $p< .05$). Illiterate group is also significantly differ from the highly educated group ($M_{illiterate} - M_{highly educated} = 5.8589$, $p< .05$), but less educated and highly educated groups do not differ significantly ($M_{less educated} - M_{highly educated} = 2.1259$, $p< .39$) on loneliness. The hypothesis that there would be no significant difference between illiterate and less educated groups as well as illiterate and highly educated groups with regard to loneliness is rejected; while the hypothesis that there would be no significant difference between less educated and highly educated groups with regard to loneliness is accepted by the results.
Table-43: ‘Multiple Comparison Table’ to compare illiterate, less educated and highly educated old age groups on optimism:

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Comparing Groups</th>
<th>Mean Difference</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Illiterate</td>
<td>2.8464**</td>
<td>.9605</td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optimism</td>
<td>Illiterate</td>
<td>9.5659**</td>
<td>1.0136</td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td>6.7194**</td>
<td>.9114</td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

As we see from the descriptive table that overall there is a significant difference between the three groups on optimism $F (2, 397) = 49.057, p< .01$ the Tukey Post Hoc test reveals that the illiterate group is significantly different from the less educated group ($M-M = 2.8464, p< .05$). Illiterate group again significantly differ from the highly educated group ($M-M = 9.5659, p< .05$). Less educated group is also significantly different from highly educated group ($M-M = 6.7194, p< .05$) on optimism. The results indicate that the hypothesis that there would be no significant difference between illiterate and less educated groups as well as illiterate and highly educated groups with regard to optimism is rejected. The hypothesis that there would be no significant difference between less educated and highly educated groups with regard to optimism is also rejected.
Table-44: ‘Multiple Comparison Table’ to compare illiterate, less educated and highly educated old age groups on pessimism:

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Comparing Groups</th>
<th>Mean Difference</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Illiterate</td>
<td>4.2527**</td>
<td>1.3709</td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pessimism</td>
<td>Illiterate</td>
<td>14.3481**</td>
<td>1.4467</td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td>10.0955**</td>
<td>1.3009</td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

As we see from the descriptive table that overall there is a significant difference between the three groups on pessimism F (2, 397) = 54.223, p< .01, the Tukey Post Hoc test reveals that the illiterate group is significantly different from the less educated group (M~M = 4.2527, p< .05) and highly educated group (M~M = 14.3481, p< .05) further less educated group is significantly different from highly educated group (M~M = 10.0955, p< .05) on pessimism. The results indicate that the hypothesis that there would be no significant difference between illiterate, less educated and highly educated old age participants groups with regard to pessimism is rejected.
Table-45: ‘Multiple Comparison Table’ to compare illiterate, less educated and highly educated old age groups on life satisfaction:

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Comparing Groups</th>
<th>Mean Difference</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Satisfaction</td>
<td>Illiterate</td>
<td>1.8724**</td>
<td>.6416</td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td>7.7911**</td>
<td>.6771</td>
</tr>
<tr>
<td></td>
<td>Less Educated</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highly Educated</td>
<td>9.6635**</td>
<td>.6088</td>
</tr>
</tbody>
</table>

*significant at .01 level, **significant at .05 level, NS

As we see from the descriptive table that overall there is a significant difference between the three groups on life satisfaction F (2, 397) = 134.051, p< .01. the Tukey Post Hoc test reveals that illiterate group is significantly different from the less educated group (M−M = 1.8724, p<.05) as well as highly educated group (M−M = 7.7911, p< .05). we can see that less educated group also significantly differ from highly educated group (M−M = 9.6635, p< .05) on life satisfaction so the hypothesis that there would be no significant difference between illiterate, less educated and highly educated old age participants groups with regard to life satisfaction is rejected.
In this chapter we shall discuss depression in old age and its dynamic effects on their life and also on their personality. The changes that often come in later life like retirement, the death of loved ones, increased isolation, and medical problems among old participants can lead to depression. Depression prevents them from enjoying life like they used to. But its effects go far beyond mood. It also impacts their energy, sleep, appetite, physical health, and their way of thinking. As we know that the main objective of the current study was to find out the relationship of depression with loneliness, optimism and life satisfaction. Depression was considered as a dependent variable while loneliness, optimism and life satisfaction as the independent variable. We know that depression, loneliness and life satisfaction were not having any facets but optimism had its two facets namely optimism and pessimism. Different hypothesis were formulated to reach the objective and the investigator set some goals to reach the conclusion.

The very first goal of the study was to examine the relationship between depression and loneliness among old age participants. The second goal was to examine the relationship of depression with optimism and pessimism among old age participants. The third important and final goal was to examine the relationship of depression with life satisfaction among old age participants. In order to investigate the three objectives, the examiner applied stepwise multiple regression analysis and to find out the group difference t-test and ANOVA were applied to the data, then results were found. The results can be discussed in such a way:

The results of the present study show a significant relationship between depression and loneliness among overall old age participants. The investigator finds loneliness a significant predictor of depression among old age people. There is a positive relationship between the two variables. The findings are supported by Swami et al. (2007) who did their study with Malaysian medical students to examine the associations between life satisfaction, loneliness, general health and depression. They conclude that less satisfied and particularly lonelier individuals were more likely to report higher levels of depression. Similarly Luanaigh & Lawlor (2008) support our findings that Loneliness has strong association with depression and may in fact be an independent risk factor for depression. The strong correlation between loneliness and
depression reaffirms previous findings of positive correlations between loneliness and depressive symptoms (Park & Chang, 2004; Alpass & Neville, 2003; Hsu et al., 1987). These findings suggest that future studies of depressive symptoms with negative affective conditions should consider loneliness as a robust predictor of these maladaptive emotional and behavioral conditions. Further, the findings of the present study are supported by Weeks et al. (1980), Prince et al. (1997), Hagerty and Williams (1999), Nolen-Hoeksema and Ahrens (2002), Minardi and Blanchard (2003), Cacioppo et al. (2006), Yaacob et al. (2009), Barg et al. (2006), Izgar (2009) and many others.

Results by Han and Rechardson (2010) are different from the present study in some way. Their findings show that loneliness and depression are significantly related but that spirituality do not significantly moderate this association. However, the positive relationship between loneliness and depression was weaker among older persons who reported higher scores on the spirituality measure suggesting that spirituality might act as a buffer between loneliness and depression.

Further, a significant positive relationship between loneliness and depression is found among male and female participants, participants living in rural areas, participants with spouse alive, participants who are financially dependent on their family, participants who are living with their family, participants who are illiterate and the participants who are less educated. On the other hand, an insignificant relationship was found between loneliness and depression among participants living in urban areas, participants with spouse not alive, participants who are financially independent, participants who are living without their family and the participants who are highly educated.

The second aim of the investigator was to find out the relationship of depression with optimism and pessimism among old age participants. As a result of stepwise multiple regression analysis pessimism is found to be a significant predictor of depression among overall old age participants. The relationship between pessimism and depression is positive. While no significant relationship between optimism and depression is found among overall old age participants.

The results are supported with the findings of Van der Velden et al. (2007) who studied the association between dispositional optimism and depression in the
victims of natural disaster. The researchers found that pessimists nurtured little hope for the future and were more at risk for depressive and anxiety disorders compared to optimists. Similarly Joshi and Tomar (2010) found that optimists and pessimists differ from each other on the level of depression. Pessimists have a higher level of depression as compared to optimists. The level of apathy, pessimism, and tendency of fatigability, irritability, social withdrawal, self-dislike, self-acquisition, self-harm, social reoccupation and indecisiveness is higher among pessimist adolescents as compared to optimists.

Similar to our findings, Alloy and Abramson (1999) in a study at Temple University and the University of Wisconsin using freshmen following 173 optimists and 176 pessimists found that 17% of the pessimists succumbed to a major depression in contrast with 6% of the optimists who developed minor depression. They found that pessimists were more probable to be hit with depression as compared to the optimists.

Bromberger and Matthews (1996) also support our findings. They found a significant interaction between optimism-pessimism and stress in predicting depressive symptoms in a sample of 460 middle aged adults. Moreover, a plot of the interactions by these investigators revealed that pessimistic adults experienced depressive symptoms, especially under conditions of greater stress, compared to more optimistic adults.

A significant positive relationship is found between pessimism and depression among female old age participants, participants living in urban areas, participants with spouse alive, participants with spouse not alive, participants financially dependent on their family, participants financially independent of their family, participants living with their family, participants who are not living with their family, illiterate, less educated and also among highly educated participants. On the other hand results also show that there is an insignificant relationship between pessimism and depression among male old age participants and old age participants living in rural areas.

The results reveal an insignificant relationship between optimism and depression among old age participants. Findings of Puskar et al. (1999), Hasan and Power (2002), Steele and Wade (2004), Karademas (2006), Mosher et al. (2006), Tao-shao (2006), Barlow et al. (2008), Hart et al. (2008) and many others are contradictory
to our findings who show either a positive or a negative relationship of optimism with depression in some way.

The results show that there is a significant positive relationship between optimism and depression among participants with spouse alive, participants who are financially independent, participants living with their family and also among highly educated old age participants. A significant negative relationship is found between optimism and depression among participants who are financially dependent on their family. While an insignificant relationship is found between optimism and depression among males, females, participants living in rural areas, participants living in urban areas, participants with spouse not alive, participants living without their families, illiterate and also among less educated old age participants.

Finally the investigator wanted to find out the relationship between depression and life satisfaction. As a result, it is found that life satisfaction is significantly related to the depression among overall old age participants. The relationship between the two variables is negative, means as life satisfaction decreases in old age, depression increases and also as life satisfaction increases, it results in a decrease of depression in old age. The results are supported by the findings of Simpson et al. (1996); Shaun, Saunders and Roy (2000); Benrud-Larson et al. (2005) and many others. Simpson et al. (1996) studied 311 Australian and 250 Nepalese university students who completed the Center for Epidemiological Studies Depression Scale (CES-D) and the Satisfaction with Life Scale (SWLS). A moderate significant inverse relationship was found between depressive symptoms and life satisfaction by the researchers in the Australian respondents, with a smaller significant inverse relationship among the Nepalese respondents.

Shaun et al. (2000) also supports the results of present investigation who found that both social interest and depression are each significantly correlated with life satisfaction. A partial correlation was calculated for the relationship between the BDI and the SWLS, with SII held constant. As a result, it was found that depression was negatively correlated with life satisfaction. In the same way, Benrud-Larson et al. (2005) investigated the rate of depressive symptoms and their relationship to life satisfaction in patients with multiple system atrophy (MSA). As a result, participants reported a high rate of depressive symptoms and low life satisfaction. Regression
analysis revealed that depressive symptoms accounted for an additional 15% of the variance in life satisfaction. It was concluded by the researchers that depressive symptoms were common, often severe, and an important determinant of life satisfaction in patients with MSA.

Study by Varshney (2007) aimed to identify the predictors of successful aging. She wanted to study the associations between social network patterns, life satisfaction, depression, subjective health, and leisure time activity for older adults in India. Her findings are very much similar to our findings. It was determined by the researcher that there was a significant negative correlation between life satisfaction and depression, indicating that participants with higher sense of life satisfaction endorsed fewer depressive symptoms. Regression analysis for life satisfaction indicated that depression levels were significant predictors of life satisfaction. Further the results of Chapin & Holbert (2009), Eriksson et al. (2009), Berga et al. (2009), Sinikallio et al. (2009), Lue et al. (2010), Stalnacke (2011) and many others are in agreement of our findings.

Further in the present research, results show a significant negative relationship between depression and life satisfaction among male and female old age participants, participants living in rural and urban areas, participants who have their spouse alive and who don’t have their spouse alive, participants financially dependent on their family, participants living with their family and who are not living with their family, illiterate, less educated and also among highly educated participants. In all these groups life satisfaction is significantly related to depression. While no significant relationship is found between life satisfaction and depression among financially independent participants.

As a result of t-test no significant difference is found between male and female old age participants with regard to depression and optimism. The results reveal that there is no significant gender differences in the old age persons with respect to depression, i.e., both the male and female old age persons equally experience feelings of depression. Further a significant difference between male and female old age participants is found with regard to loneliness, pessimism and life satisfaction. It is found that old age females are lonelier, more pessimistic and more satisfied with their lives than the male old age participants. During the whole research the researcher felt...
that females were satisfied with their life even if they don't have a good life to enjoy. The life was not up to their expectations. This aspect of life satisfaction among females can be explained in Indian context only for the reason that from the very beginning of their childhood females in India are taught to live peacefully and to be satisfied with what they get from their lives. No matter if it is less or more but they should be happy and satisfied and should keep their life and family members happy.

A significant difference is found between participants living in rural areas and participants living in urban areas with regard to depression, loneliness, optimism-pessimism and life satisfaction. Results show that participants living in urban areas are more depressed, lonelier, more pessimistic but more satisfied with their lives than the participants who are living in rural areas. The reason may be that in urban areas most of the families have joint families and they live in such a way that all communities feel like a family. While in urban areas most of the population has nuclear families and also participants do not have much time to spend with their families. Participants living in rural areas are more optimistic but less satisfied with their lives. It is obvious that dreams like living in big cities, earning more, and having all the facilities make rural participants less satisfied with their life, but they do not lose hope for the better of their life.

The results show that there is a significant difference between participants with spouse alive and participants with spouse not alive with regard to depression, optimism-pessimism and loneliness. It is found that participants who do not have their spouses alive are highly depressed, lonelier and more pessimistic in comparison to those who do have their spouses alive. It is also seen that participants with spouse alive are more optimistic than the participants who don't have their spouse alive. The finding supports the human nature and gives importance to the idea that life partner plays a dynamic role to the life in old age of an individual. The support of the partner can make life happier; it helps in reducing loneliness and depression and makes a person optimistic. While a person who don't have his life partner alive, felt alone, don't have anyone to share his problems and feelings which results in development of pessimistic attitude. It can be concluded that a living life partner may reduce the possibility of becoming depressed, feeling loneliness, and increases the optimistic attitude in old age. On the other hand no significant difference is found between participants with spouse alive and participants with spouse not alive with regard to
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Results and Discussion

life satisfaction. The amount of life satisfaction is same in both the groups. Though there is a significant difference between the two groups on the variables like depression, optimism-pessimism and loneliness, but both groups are similar on life satisfaction.

We see in the results that there is a significant difference between financially dependent old age participants and financially independent old age participants with regard to depression, loneliness, optimism-pessimism and life satisfaction. The results show that the participants who are financially dependent on their family members are more depressed, lonelier and have more pessimistic attitude than those who are financially independent and earning by their own. On the other hand financially independent old age participants are more optimistic and more satisfied with their lives than those who are financially dependent on their family. It is true that financial condition is most of the time are responsible for the development of attitude and thought process. During the data collection the researcher felt that participants who were independent and earning were more confident and energetic with an optimistic attitude while participants who were financially dependent on their families were less energetic, and pessimistic and they did not had any charm to live their life happily. The researcher found that though the participants were earning less but they were happy and satisfied with their earnings. It is obvious that the factors like death of life partner and financial dependency increases depression in a person. It increases in old age more commonly because a person expects much more from his family members at this stage, and if it fails, the result is depression and loneliness with a pessimistic attitude, which can lead to life dissatisfaction.

There is a significant difference between participants living with their families and participants living without their families with regard to depression, loneliness, optimism-pessimism and life satisfaction. It is surprising to find the results that the participants living with their families are more depressed and more pessimistic than those who are not living with their families. But we should not be surprised to find these results because, somehow it is observed when differences increase between the family members specially two generations, members prefer to live separately to be relaxed and live peacefully, and if there are joint families, the generation gap with changed thinking and life style of family members plays an important role in the development of depression among old age participants. Further it can be seen that
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participants living without their families are feeling lonelier; at the same time they are
more optimistic and more satisfied with their lives than those who are living with their
families. It highlights that participants living without their families have a hope and
positive attitude towards future; they don’t lose hope for better life and better
conditions. While the conditions and circumstances in a joint family makes a person
pessimistic and hopeless for future.

Results show that there is a significant difference between the illiterate, less
educated and highly educated group with regard to depression, loneliness, optimism-
pessimism and life satisfaction. It is found that illiterate participants are more
depressed, lonelier and more pessimistic than the other two groups while highly
educated participants are more optimistic and satisfied with their lives than the
illiterate and less educated participants. Highly educated participants are lowest on
depression and pessimism while less educated participants are lowest on loneliness
and life satisfaction. The illiterate participants are lowest on optimistic attitude. The
result can be discussed in such a simple way, because illiterate participants do not
have any prestigious job or business, they do not earn more and so the results are
many children, broken families, misconceptions between husband and wife which
results in depression, loneliness and pessimistic attitude. On the other hand, because
highly educated participants have a small family, they have a prestigious job or their
own business, they are low on depression, they are able to develop an optimistic
attitude towards them, and so they are highly satisfied with their lives. We can say that
education plays an important role in dealing with the problems of life, and also how to
manage with the obstacles and so highly educated participants feel more satisfied with
their life than the other.

To conclude the chapter it will be safe to say that growing older is something
that everyone faces and the process definitely changes us, mentally as well as
physically, but with some courage and optimistic attitude we can handle old age and
its upcoming dynamic effects.
CONCLUSION

The aim of the present investigation is to study depression in relation to loneliness, optimism and life satisfaction. To see if depression is related to these variables or not, investigator choose old age people as participants. Depression was considered as a dependent variable while loneliness, optimism-pessimism and life satisfaction as the independent variables. Data was collected and analyzed using stepwise multiple regression analysis, t-test and ANOVA. Results were obtained and discussed in the light of previous studies for the rejection or acceptation of the formulated hypothesis. Finally on the basis of obtained results we can conclude and summarize the findings in such a way:

- Loneliness is significantly and positively related to depression among old age participants.
- Optimism is insignificantly related to depression among old age participants.
- Pessimism is significantly and positively related to depression among old age participants.
- Life satisfaction is significantly and negatively related to depression among old age participants.
- Loneliness is significantly and positively related to depression among male old age participants.
- Optimism is insignificantly related to depression among male old age participants.
- Pessimism is insignificantly related to depression among male old age participants.
- Life satisfaction is significantly and negatively related to depression among male old age participants.
- Loneliness is significantly and positively related to depression among female old age participants.
- Optimism is insignificantly related to depression among female old age participants.
- Pessimism is significantly and positively related to depression among female old age participants.
• Life satisfaction is significantly and negatively related to depression among female old age participants.

• Loneliness is significantly and positively related to depression among old age participants living in rural areas.

• Optimism is insignificantly related to depression among old age participants living in rural areas.

• Pessimism is insignificantly related to depression among old age participants living in rural areas.

• Life satisfaction is significantly and negatively related to depression among old age participants living in rural areas.

• Loneliness is insignificantly related to depression among old age participants living in urban areas.

• Optimism is insignificantly related to depression among old age participants living in urban areas.

• Pessimism is insignificantly related to depression among old age participants living in urban areas.

• Life satisfaction is significantly and negatively related to depression among old age participants living in urban areas.

• Loneliness is significantly and positively related to depression among old age participants who have their spouses alive.

• Optimism is significantly and positively related to depression among old age participants who have their spouses alive.

• Pessimism is significantly and positively related to depression among old age participants who have their spouses alive.

• Life satisfaction is significantly and negatively related to depression among old age participants who have their spouses alive.

• Loneliness is insignificantly related to depression among old age participants who do not have their spouses alive.

• Optimism is insignificantly related to depression among old age participants who don’t have their spouses alive.

• Pessimism is significantly and positively related to depression among old age participants who don’t have their spouses alive.
• Life satisfaction is significantly and negatively related to depression among old age participants who don’t have their spouses alive.

• Loneliness is significantly and positively related to depression among old age participants who are financially dependent on their family.

• Optimism is significantly and negatively related to depression among old age participants who are financially dependent on their family.

• Pessimism is significantly and positively related to depression among old age participants who are financially dependent on their family.

• Life satisfaction is significantly and negatively related to depression among old age participants who are financially dependent on their family.

• Loneliness is insignificantly related to depression among old age participants who are financially independent.

• Optimism is significantly and positively related to depression among old age participants who are financially independent.

• Pessimism is significantly and positively related to depression among old age participants who are financially independent.

• Life satisfaction is insignificantly related to depression among old age participants who are financially independent.

• Loneliness is significantly and positively related to depression among old age participants who are living with their family.

• Optimism is significantly and positively related to depression among old age participants who are living with their family.

• Pessimism is significantly and positively related to depression among old age participants who are living with their family.

• Life satisfaction is significantly and negatively related to depression among old age participants who are living with their family.

• Loneliness is insignificantly related to depression among old age participants who are living without their family.

• Optimism is insignificantly related to depression among old age participants who are living without their family.
- Pessimism is significantly and positively related to depression among old age participants who are living without their family.
- Life satisfaction is significantly and negatively related to depression among old age participants who are living without their family.
- Loneliness is significantly and positively related to depression among illiterate old age participants.
- Optimism is insignificantly related to depression among illiterate old age participants.
- Pessimism is significantly and positively related to depression among illiterate old age participants.
- Life satisfaction is significantly and negatively related to depression among illiterate old age participants.
- Loneliness is significantly and positively related to depression among less educated old age participants.
- Optimism is insignificantly related to depression among less educated old age participants.
- Pessimism is significantly and positively related to depression among less educated old age participants.
- Life satisfaction is significantly and negatively related to depression among less educated old age participants.
- Loneliness is insignificantly related to depression among highly educated old age participants.
- Optimism is significantly and positively related to depression among highly educated old age participants.
- Pessimism is significantly and positively related to depression among highly educated old age participants.
- Life satisfaction is significantly and negatively related to depression among highly educated old age participants.
- There is no difference between male and female old age participants with regard to depression.
- Female old age participants are lonelier than the male old age participants.
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Results and Discussion

- There is no difference between male and female old age participants with regard to optimism.
- Female old age participants are more pessimistic than the male old age participants.
- Female old age participants are more satisfied with their life than the male old age participants.
- Old age participants living in urban areas are more depressed than the old age participants living in rural areas.
- Old age participants living in urban areas are lonelier than the old age participants living in rural areas.
- Old age participants living in rural areas are more optimistic than the old age participants living in urban areas.
- Old age participants living in urban areas are more pessimistic than the old age participants living in rural areas.
- Old age participants living in urban areas are more satisfied with their life than the old age participants living in rural areas.
- Old age participants who don’t have their spouse alive are more depressed than the old age participants who have their spouse alive.
- Old age participants who don’t have their spouse alive are lonelier than the old age participants who have their spouse alive.
- Old age participants who have their spouse alive are more optimistic than the old age participants who don’t have their spouse alive.
- Old age participants who don’t have their spouse alive are more pessimistic than the old age participants who have their spouse alive.
- There is no difference between old age participants who have their spouses alive and old age participants who don’t have their spouses alive with regard to life satisfaction.
- Old age participants financially dependent on their family are more depressed than the old age participants who are financially independent.
- Old age participants financially dependent on their family are lonelier than the old age participants who are financially independent.
Old age participants who are financially independent are more optimistic than the old age participants who are financially dependent on their family.

Old age participants financially dependent on their family are more pessimistic than the old age participants who are financially independent.

Old age participants who are financially independent are more satisfied with their life than the old age participants who are financially dependent on their family.

Old age participants who are living with their family are more depressed than the old age participants who are living without their family.

Old age participants who are living without their family are lonelier than the old age participants who are living with their family.

Old age participants who are living without their family are more optimistic than the old age participants who are living with their family.

Old age participants who are living with their family are more pessimistic than the old age participants who are living without their family.

Old age participants who are living without their family are more satisfied with their life than the old age participants who are living with their family.

Illiterate old age participants are the most depressed group.

Highly educated old age participants are the least depressed group.

Illiterate old age participants are the loneliest group.

Less educated old age participants are the least lonely group.

Highly educated old age participants are the most optimistic group.

Illiterate old age participants are the least optimistic group.

Illiterate old age participants are the most pessimistic group.

Highly educated old age participants are the least pessimistic group.

Less educated old age participants are the group who are least satisfied with their life.

Highly educated old age participants are the group who are most satisfied with their life.
Further Suggestions and Implications:

Though every researcher and every person tries to do the best in his work, but as it is said that nobody is perfect in this world, it is possible to have some limitations during completion of the work. Keeping in mind the whole study, its procedure and the results, there are some suggestions to be followed for further research. These are as follows:

- An extensive plan of research is required to study the sample in a broad way. Old age participants living abroad (living out of their country) or old age participants living in old age homes could be a part of the sample.
- It is also suggested that some more aspects of the old age participants like physical health and related problems and sociological status could be studied.
- Some more psychological states of old age participants like feeling of insecurity, feeling of worthlessness, fear of death, religious and spiritual attitude and feeling of being rejected could be studied.
- Status and problems of old age participants in different cultures could be compared.
- Because the participants relate to Indian culture, it could be preferable to use those measuring tools which are developed in India and are made to measure the psychology of Indians.
- The old age participants are a big part of the general population so the sample could be large. If the research is implicated on about 1000 old age participants, it could be more reliable and generalizable.
- Government should start some more plans to take care of old age participants in India.
- Though a vast change is occurring in the customs and traditions of Indian culture, we should try to keep them in a threat of love and affection. Each and every person of the family should be in touch of our culture and tradition.
- Inclusion of some more variables could give some changed results.
- There is a need to give respect to our old age participants to make them feel important for us so that they could feel like strong roots of a tree like family.
References
REFERENCES


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Appendices
### Beck Depression Inventory

<table>
<thead>
<tr>
<th>Item</th>
<th>Statement</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sadness</td>
<td>I do not feel sad.</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>I feel sad much of the time.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>I am sad all the time.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>I am so sad or unhappy that I can't stand it.</td>
<td>3</td>
</tr>
<tr>
<td>2. Pessimism</td>
<td>I am not discouraged about my future.</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>I am more discouraged about my future than I used to be.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>I do not expect things to work out for me.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>I feel my future is hopeless and will only get worse.</td>
<td>3</td>
</tr>
<tr>
<td>3. Past Failure</td>
<td>I do not feel like a failure.</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>I have failed more than I should have.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>As I look back, I see a lot of failures.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>I feel I am a total failure as a person.</td>
<td>3</td>
</tr>
<tr>
<td>4. Loss of Pleasure</td>
<td>I get as much pleasure as I ever did from the things I enjoy.</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>I don't enjoy things as much as I used to.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>I get very little pleasure from the things I used to enjoy.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>I can't get any pleasure from the things I used to enjoy.</td>
<td>3</td>
</tr>
<tr>
<td>5. Guilty Feelings</td>
<td>I don't feel particularly guilty.</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>I feel guilty over many things I have done or should have done.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>I feel quite guilty most of the time.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>I feel guilty all of the time.</td>
<td>3</td>
</tr>
</tbody>
</table>

### Baseline

- **Name:**
- **Marital Status:**
- **Age:**
- **Sex:**
- **Occupation:**
- **Education:**

**Instructions:** This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the one statement in each group that best describes the way you have been feeling during the past two weeks, including today. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).


<table>
<thead>
<tr>
<th></th>
<th>Beck Depression Inventory</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Agitation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I am no more restless or wound up than usual.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I feel more restless or wound up than usual.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I am so restless or agitated that it’s hard to stay still.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I am so restless or agitated that I have to keep moving or doing something.</td>
<td></td>
</tr>
<tr>
<td>12. Loss of Interest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I have not lost interest in other people or activities.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I am less interested in other people or things than before.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I have lost most of my interest in other people or things.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>It’s hard to get interested in anything.</td>
<td></td>
</tr>
<tr>
<td>13. Indecisiveness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I make decisions about as well as ever.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I find it more difficult to make decisions than usual.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I have much greater difficulty in making decisions than I used to.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I have trouble making any decisions.</td>
<td></td>
</tr>
<tr>
<td>14. Worthlessness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I do not feel I am worthless.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I don’t consider myself as worthwhile and useful as I used to.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I feel more worthless as compared to other people.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I feel utterly worthless.</td>
<td></td>
</tr>
<tr>
<td>15. Loss of Energy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I have as much energy as ever.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I have less energy than I used to have.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I don’t have enough energy to do very much.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I don’t have enough energy to do anything.</td>
<td></td>
</tr>
<tr>
<td>16. Changes in Sleeping Pattern</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I have not experienced any change in my sleeping pattern.</td>
<td></td>
</tr>
<tr>
<td>1a</td>
<td>I sleep somewhat more than usual.</td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>I sleep somewhat less than usual.</td>
<td></td>
</tr>
<tr>
<td>2a</td>
<td>I sleep a lot more than usual.</td>
<td></td>
</tr>
<tr>
<td>2b</td>
<td>I sleep a lot less than usual.</td>
<td></td>
</tr>
<tr>
<td>3a</td>
<td>I sleep most of the day.</td>
<td></td>
</tr>
<tr>
<td>3b</td>
<td>I wake up 1–2 hours early and can’t get back to sleep.</td>
<td></td>
</tr>
<tr>
<td>17. Irritability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I am no more irritable than usual.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I am more irritable than usual.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I am much more irritable than usual.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I am irritable all the time.</td>
<td></td>
</tr>
<tr>
<td>18. Changes in Appetite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I have not experienced any change in my appetite.</td>
<td></td>
</tr>
<tr>
<td>1a</td>
<td>My appetite is somewhat less than usual.</td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>My appetite is somewhat greater than usual.</td>
<td></td>
</tr>
<tr>
<td>2a</td>
<td>My appetite is much less than before.</td>
<td></td>
</tr>
<tr>
<td>2b</td>
<td>My appetite is much greater than usual.</td>
<td></td>
</tr>
<tr>
<td>3a</td>
<td>I have no appetite at all.</td>
<td></td>
</tr>
<tr>
<td>3b</td>
<td>I crave food all the time.</td>
<td></td>
</tr>
<tr>
<td>19. Concentration Difficulty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I can concentrate as well as ever.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I can’t concentrate as well as usual.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>It’s hard to keep my mind on anything for very long.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I find I can’t concentrate on anything.</td>
<td></td>
</tr>
<tr>
<td>20. Tiredness or Fatigue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I am no more tired or fatigued than usual.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I get more tired or fatigued more easily than usual.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I am too tired or fatigued to do a lot of the things I used to.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I am too tired or fatigued to do most of the things I used to do.</td>
<td></td>
</tr>
<tr>
<td>21. Loss of Interest in Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I have not noticed any recent change in my interest in sex.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I am less interested in sex than I used to be.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I am much less interested in sex now.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I have lost interest in sex completely.</td>
<td></td>
</tr>
</tbody>
</table>
Indicate how often you have felt the way described in each statement using the following scale:

4 indicates "I have felt this way often."
3 indicates "I have felt this way sometimes."
2 indicates "I have felt this way rarely."
1 indicates "I have never felt this way."

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel in tune with the people around me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I lack companionship.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>3. There is no one I can turn to</td>
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<td>4. I do not feel alone</td>
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<td>5. I feel part of a group of friends</td>
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<td>6. I have a lot in common with the people around me</td>
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<tr>
<td>7. I am no longer close to anyone</td>
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<tr>
<td>8. My interests and ideas are not shared by those around me</td>
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<tr>
<td>9. I am an outgoing person</td>
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<td>10. There are people I feel close to</td>
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<td>11. I feel left out</td>
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<td>12. My social relationships are superficial</td>
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<tr>
<td>13. No one really knows me well</td>
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<td>14. I feel isolated from others</td>
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<td>15. I can find companionship when I want it</td>
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<td>16. There are people who really understand me</td>
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<td>17. I am unhappy being so withdrawn</td>
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<td>18. People are around me but not with me</td>
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<tr>
<td>19. There are people I can talk to</td>
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<tr>
<td>20. There are people I can turn to</td>
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**Instructions:** the 56 statements printed below represent individual differences in viewpoints. Using the scale shown below, please respond with your own point of view to all the statements. For example, if you strongly agree with a statement then circle 1(S.A.) do not spend a lot of time thinking about each one; just indicate your first impression. Remember; respond to these statements according to how you feel about them right now.

1- Strongly agree  
2- Agree  
3- Disagree  
4- Strongly disagree  

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<tbody>
<tr>
<td>1- I like people I get to know.</td>
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<td>2- It is best not to set your hopes too high since you will probably be disappointed.</td>
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<td>3- There is so much to be done and so little time to do it in.</td>
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<td>4- I have a tendency to make mountains out of molehills.</td>
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<td>5- Rarely do I expect good things to happen.</td>
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<td>6- Everything changes so quickly these days that I often have trouble deciding which the right rules to follow are.</td>
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<td>7- All in all the world is a good place.</td>
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<td>8- When it comes to my future plans and ambitions in life, I expect more things to go wrong than right.</td>
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<td>9- My hardest battles are with myself.</td>
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<td>10- I believe there is not much hope for the human race.</td>
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<td>11- It does not take me long to shake off a bad mood.</td>
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<td>12- If you hope and wish for something long and hard enough, you will eventually get it.</td>
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<td>13- People get ahead by using 'pull' and not because of what they know.</td>
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<td>14- Even when things in my life are going ok, I expect them to go worse soon.</td>
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<td>15- With enough faith, you can do almost anything.</td>
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<td>16- I enjoy myself most when I am alone, away from other people.</td>
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<td>17- When I undertake something new, I expect to succeed.</td>
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<td>18- Honesty is the best policy in all cases.</td>
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<td>19- I generally look at the brighter side of life.</td>
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<td>20- If I make a decision on my own, I can pretty much count on the fact that it will turn out to be a poor one.</td>
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<td>21- I generally make light of my problems</td>
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<td>22- It is always good thing to be frank.</td>
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<td>23- Where there is a will there is a way.</td>
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<td>24- I have a tendency to blow up problems so they seem worse than they are.</td>
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<td>25- All in all, it’s better to be humble and honest than important and</td>
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<td>26.</td>
<td>As time goes on, things will most likely get worse.</td>
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<td>27.</td>
<td>It is the slow, steady worker who usually accomplishes the most in the end.</td>
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<td>28.</td>
<td>When I go to a party, I expect to have fun.</td>
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<td>29.</td>
<td>Times are getting better.</td>
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<td>30.</td>
<td>Everyone should have an equal chance and an equal say.</td>
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<td>31.</td>
<td>Better to expect defeat then it doesn’t hit so hard when it comes.</td>
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<td>32.</td>
<td>It is wise to flatter important people.</td>
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<td>33.</td>
<td>I expect to achieve most of the things I want in life.</td>
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<td>34.</td>
<td>It seems the cards of life are stacked against me.</td>
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<td>35.</td>
<td>What is lacking in the world today is the old kind of friendship that lasted for a lifetime.</td>
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<td>36.</td>
<td>When the weatherman predicts 50% chance of rain, you might as well count on seeing rain.</td>
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<td>37.</td>
<td>Before an interview, I am usually confident that things will go well.</td>
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<td>38.</td>
<td>Sometimes I feel down, but I bounce right back again.</td>
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<td>39.</td>
<td>The future seems too uncertain for people to make serious plans.</td>
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<td>40.</td>
<td>When I have undertaken a task, I find it difficult to set it aside even for a short time.</td>
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<td>41.</td>
<td>Tenderness is more important than love.</td>
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<td>42.</td>
<td>When gambling, I expect to lose.</td>
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<td>43.</td>
<td>Anyone who is willing to work hard has a good chance for success.</td>
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<td>44.</td>
<td>The future looks very dismal.</td>
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<td>45.</td>
<td>If I had to choose between happiness and greatness, I had choose greatness.</td>
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<td>46.</td>
<td>Minor setbacks are something I usually ignore.</td>
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<td>47.</td>
<td>In general, things turn out all right in the end.</td>
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<td>48.</td>
<td>It is better to be a dead hero than a live coward.</td>
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<td>49.</td>
<td>Give me 50/50 odds and I will choose the wrong answer every time.</td>
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<td>50.</td>
<td>It is hard to get ahead without cutting corners here and there.</td>
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<td>51.</td>
<td>If I was in competition and contestants were narrowed down to me and one other person, I would expect to be runner-up.</td>
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<td>52.</td>
<td>April showers bring May flowers.</td>
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<td>53.</td>
<td>I can be comfortable with nearly all kinds of people.</td>
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<td>54.</td>
<td>The worst defeats come after the best victories.</td>
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<td>55.</td>
<td>In the history of the human race there have probably been just a handful of really great thinkers.</td>
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<td>56.</td>
<td>Every cloud has a silver lining.</td>
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Satisfaction with life Scale (SWLS)

Instructions: Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

1. In most ways my life is close to my ideal.  

2. The conditions of my life are excellent.  

3. I am satisfied with my life.  

4. So far I have gotten the important things I want in life.  

5. If I could live my life over, I would change almost nothing.