

**ARE OLDER PEOPLE HAPPIER THAN YOUNGER  
PEOPLE? A PSYCHOLOGICAL INQUIRY**

A Thesis Submitted

To

**Sikkim University**



In Partial Fulfilment of the Requirement for the  
**Degree of Doctor of Philosophy**

By

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Department of Psychology

School of Human Sciences

November 2018



सिक्किम विश्वविद्यालय

(भारतके संसदके अधिनियमद्वारा स्थापित केन्द्रीय विश्वविद्यालय)

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## DECLARATION

I declare that the thesis entitled "Are older people happier than younger people? A psychological inquiry" submitted to Sikkim University for the Degree of Doctor of Philosophy in Psychology is my original research work carried out by me during the period from August 2015 to November 2018 under the supervision of Dr. Satyananda Panda, Associate Professor and Head, Department of Psychology, Sikkim University and co-supervision of Dr. Nutankumar S. Thingujam, Professor and Head, Department of Psychology, Tripura University. Any part or content of the thesis has not been submitted to this or any other University or Institution for the award of any degree or diploma.

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## CERTIFICATE

This is to certify that the thesis entitled "Are older people happier than younger people? A psychological inquiry" submitted by Ms. Moirangthem Sandhyarani Devi (Roll No. 15PDPS01 and Registration No. 15/Ph.D/PSY/01) in partial fulfillment of the requirement for the award of **PhD Degree in Psychology** of Sikkim University has not been previously submitted for the award of any degree or diploma to this or any other University. This thesis is her original work and she has been working under our supervision.

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**A PSYCHOLOGICAL INQUIRY”**

Submitted by **Ms. Moirangthem Sandhyarani Devi** under the supervision of **Dr. Satyananda Panda, Associate Professor and Head, Department of PSYCHOLOGY, School of HUMAN SCIENCES, Sikkim University, Gangtok- 737 102, INDIA** and co-supervision of **Dr. Nutankumar S. Thingujam, Professor and Head, Department of Psychology, Tripura University, Suryamani Nagar, Tripura- 799 022, INDIA.**

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## CHAPTER I INTRODUCTION

### 1.1. INTRODUCTION

Mankind has been fascinated with happiness since time immemorial because the very purpose of our own existence is to be able to live a happy life. Studies related to happiness can be found as early as Ancient Greek philosophers such as Plato and Aristotle. Plato in his book - The Republic (Plato, 1943), claimed that human beings have a tendency to naturally desire happiness. Happiness does not only depend on the external goods that life has to offer, but how we use these resources for our own good. He further claimed that a moral life, over an immoral one, would lead to a happier life. According to Plato (1943), happiness has been conceptualized as a concept, which

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## Lists of Abbreviations and Symbols

|          |                                     |
|----------|-------------------------------------|
| A        | Agreeableness                       |
| ANOVA    | Analysis of Variance                |
| BFI      | Big Five Inventory                  |
| C        | Conscientiousness                   |
| df       | Degree of Freedom                   |
| E        | Extraversion                        |
| EPQ      | Eysenck Personality Questionnaire   |
| <i>F</i> | F value                             |
| GDP      | Gross Domestic Product              |
| H        | Happiness                           |
| H        | Hypothesis                          |
| LS       | Life Satisfaction                   |
| M        | Mean                                |
| MANCOVA  | Multivariate Analysis of Covariance |
| N        | Neuroticism                         |
| N        | Number of Sample                    |
| NEO FFI  | NEO Five Factor Inventory           |
| ns       | not significant                     |
| O        | Objective                           |
| O        | Openness                            |
| OHI      | Oxford Happiness Inventory          |
| OHQ      | Oxford Happiness Questionnaire      |
| <i>p</i> | Significance value                  |



|           |   |
|-----------|---|
| P         | Personality                                 |
| PROS      | Positive Relationship with Others scale     |
| PS        | Perceived Stress                            |
| PSS       | Perceived Stress Scale                      |
| <i>r</i>  | Correlation value                           |
| RSES      | Rosenberg Self-Esteem Scale                 |
| S         | Stress                                      |
| SD        | Standard Deviation                          |
| SE        | Self-Esteem                                 |
| SR        | Social Relationship                         |
| SHS       | Subjective Happiness Scale                  |
| SHS-R     | Subjective Happiness Scale-Revised          |
| SPSS      | Statistical Package for the Social Sciences |
| SWLS      | Satisfaction with Life Scale                |
| SWB       | Subjective Well-Being                       |
| <i>t</i>  | t-value                                     |
| Tukey HSD | Tukey's Honestly Significant Difference     |
| U.S.      | United States                               |
| WB        | Well-Being                                  |
| $\eta^2$  | Eta squared                                 |
| $\alpha$  | Cronbach's alpha                            |
| $\lambda$ | Wilk's lambda                               |

## Abstract

Studies on happiness and well-being indicate that there are three trends of relationships between age and happiness i.e. U-curve, inverted U-curve and linear relationship. The present study aims to examine happiness across three age groups to study the aforementioned three trends of relationship in the Indian context, by studying happiness across three age groups, namely late adolescents, young adults and elderly, and further examine the significant difference on happiness across age groups after controlling psychosocial variables of self-esteem, stress, personality dimensions, life satisfaction, and social relationship. Gender differences of happiness were explored in addition to examining the relationship between happiness and socio-demographic variables, and the effect of selected socio-demographic variables on happiness was also determined. Quantitative research with cross-sectional study design was used for this study and data was collected using random sampling method. Oxford happiness questionnaire and subjective happiness scale-revised were used as measurement tools to examine happiness. Results showed that there is significant difference on happiness across the three age groups on both happiness measures; elderly age group reported highest happiness score than young adults and late adolescents, young adults reported higher happiness than late adolescents. Thereby confirming that older people are happier than younger people, which is in support of linear relationship between age and happiness. Pearson's product moment correlation revealed that happiness was significantly and positively associated with self-esteem, openness to experience, conscientiousness, extraversion, agreeableness, life-satisfaction, social relationship, but significantly and negatively associated with stress and neuroticism. On further analysis, it was found that happiness across the three age

groups remains significant after controlling self-esteem, stress, personality dimensions of openness to experience, conscientiousness, extraversion, agreeableness, neuroticism, life satisfaction, and social relationship. Analysis on gender differences of happiness revealed that female adolescents were happier than male adolescents, female young adults were happier than male young adults whereas male elderly were happier than female elderly. Happiness was found to be significant, positively correlated with four socio-demographic characters such as age, education, occupation and income, but significantly and negatively correlated with religion and marital status. It was found that education was the only socio-demographic factor which had a significant effect on the level of happiness. The present study captured the happiness judgment of the population in an attempt to contribute the findings toward development of an optimal happiness policy by stakeholders and policy makers.

*Key Words:* happiness, age, late adolescents, young adults, elderly, well-being

# **CHAPTER I**

# **CHAPTER I**

## **INTRODUCTION**

### *Chapter Outline*

- 1.1. Introduction
- 1.2. Psychological Definitions of Happiness
- 1.3. Theories of Happiness
- 1.4. Conceptual Framework of the Present Study
  - 1.4.1. Happiness and Socio-Demographic Variables
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  - 1.4.4. Happiness and Personality
  - 1.4.5. Happiness and Life-Satisfaction
  - 1.4.6. Happiness and Social Relationship
- 1.5. The Present Study
- 1.6. Statement of the Problem
- 1.7. Overview

# CHAPTER I

## INTRODUCTION

### 1.1. INTRODUCTION

Mankind has been fascinated with happiness since time immemorial because the very purpose of our own existence is to be able to live a happy life. Studies related to happiness can be found as early as Ancient Greek philosophers such as Plato and Aristotle. Plato in his book - *The Republic* (Plato, 1943), claimed that human beings have a tendency to naturally desire happiness. Happiness does not only depend on the external goods that life has to offer, but how we use these resources for our own good. He further claimed that a moral life, over an immoral one, would lead to a happier life. According to Plato (1943), happiness has been conceptualized as a concept, which closely resembles virtue, justice, and the ultimate meaning of human existence.

In *Nicomachean Ethics* (Aristotle, 2004), Aristotle described happiness as 'the supreme good for man'. It can be described as a goal for the perfection of human nature wherein one displays the virtues of moral courage, generosity, and intelligence, emphasizing that human beings are the architect of their own happiness. He postulated the concept of *eudaimonia* which consists of four core elements - authenticity (as reflected in self-knowledge and integrity), meaning (the ability to have an understanding and contribute toward others), excellence (the ability to give quality performance), and growth (utilizing the importance of learning and maturity). *Eudaimonia* is usually translated as happiness, but it may be more accurately perceived as "human flourishing" (Huta & Waterman, 2014). On the other hand, the concept of *hedonism* is generally described as a state of

well-being with the experience of positive emotional states that accompany gratification of desire/need. Studies on *hedonism* can be found in ancient and early modern philosophers such as Aristippus, Epicurus, Bentham, and Locke (Waterman, 2008). *Hedonism* deals with two main elements - pleasure (feeling good, joy) and comfort (relaxation, ease, absence of pain). All such significant studies on happiness which can be traced back to ancient times reflects how deeply ingrained is the quest for happiness to mankind.

The establishment of a relatively new domain called positive psychology has been credited with the scientific exploration of positive attributes in an attempt to successfully deal with negative attributes or life events. It studies human flourishing in order to achieve an optimal functioning and deals with the study of human strengths and virtues which enable individuals and communities to thrive (Gable & Haidt, 2005; Sheldon & King, 2001). There has been an enormous emphasis to explore happiness in recent researches. Positive psychology postulates that people have a central tendency to pursue happiness. One of the main objectives of positive psychology is determining how to maintain or raise one's level of happiness, and find out what kind of practices lead to lasting happiness. In simpler terms, happiness may be defined as the subjective experience of finding meaning in life, whether it may be work, family or anything which contribute to our well-being and is inter-related with life satisfaction and contentment. Within the literature, happiness has been broadly used to describe positive, subjective experiences and its associated meaning. Some of the common psychological concepts which have close resemblance with happiness have been outlined in Table 1.1, to observe the differences and similarities in their descriptions.

**Table 1.1: Concepts Closely Linked with Happiness**

| <b>Sl. No</b> | <b>Concept</b>           | <b>Description</b>   | <b>References</b>                          |
|---------------|--------------------------|--|--|
| 1.            | Happiness                | Described as optimum well-being.<br>Umbrella term for high-arousal positive affect.  | Oishi et al. (2007),<br>Fredrickson (1998) |
| 2.            | Joy                      | Higher arousal version of happiness.<br>Sometimes referred to as amusement.  | Fredrickson (1998)                         |
| 3.            | Pleasure                 | Defined as a state of being pleased.   | Brackett (2000)                            |
| 4.            | Satisfaction             | Fulfillment of desires, needs and expectations.  | Diener et al.<br>(1985)                    |
| 5.            | Contentment              | Perceived completeness that present situation is enough and entire.  | Cordaro et al.<br>(2016)                   |
| 6.            | Meaning in life          | Life meaning consists of comprehension (making sense of one's life) and purpose (having an overall life mission).  | Steger (2009)                              |
| 7.            | Subjective well-being    | Experience of affective reactions (frequent positive and infrequent negative) and cognitive judgments.   | Diener et al.<br>(1985)                    |
| 8.            | Psychological well-being | Psychological well-being consists of six factors, namely personal mastery, autonomy, purpose and meaning in life, personal growth development, and positive relationships with others. | Ryff (1989)                                |



## 1.2. PSYCHOLOGICAL DEFINITION OF HAPPINESS

The term *happiness* is seemingly easy but extremely difficult to define. One reason for this could be that the connotation of 'being happy' is used more frequently than 'happiness'. Attempts have been made in recent researches to explore what constitutes the components/elements of happiness. From psychological perspective, many researchers have given different definition of happiness, a brief compilation of which are as given below:

According to Wessman and Ricks (1966), happiness can be described as the general evaluation of subjective qualitative experience, perceived as important and significant by individuals. As such, happiness represents a concept, closely derived from the process of affective experience, indicating the important role of having an optimum balance of positive affect over a long period of time, irrespective of life circumstances and situations individuals are in.

Researchers have also depicted happiness as an emotional disposition and as a positive attitude towards life. Lieberman (1970) maintained that even before reaching the age of 18 years, an individual becomes prepared to have an inherent stable level of satisfaction which he/she maintains throughout the life within a broader range of environmental circumstances.

Fordyce (1972) stated that happiness is a distinct emotion, which reflects an overall evaluation by an individual on the basis of all pleasant and unpleasant experiences. This definition draws a similarity to one of the popular definitions of happiness as 'the sum of pleasures and pains' (Bentham, 1789) which reflects the notion of 'affect balance'.

Further, Chekola (1974) defined happiness as the successful realization of a life-plan, and absence of dissatisfaction and absence of being displeased/disliked with one's life. Shin and Johnson (1978) defined life satisfaction as the overall assessment of an individual's quality of life according to his/her chosen criteria. These definitions of happiness in terms of life satisfaction focus on the achievement of life goals/chosen criteria/life-plan (Annas, 2004). On the other hand, Schmitz (1930) defined happiness as the absence of unfulfilled aspirations that depicted happiness as a state of being without desires. It is noteworthy to mention that most definitions of happiness focus on the consistency in affective response, whereas there are other definitions of happiness which rather see it as a belief system.

According to some researcher, happiness can also be defined as a cognitive phenomenon, as the result of a deliberate evaluation process. Happiness has been conceptualized as the personal assessment of one's condition compared to an external reference standard or aspirations (McDowel & Newell, 1987).

Another researcher (Ryff, 1989) claimed happiness as a balance of positive to negative affect. In her later research, she maintained that happiness is a component of well-being and put forth the multidimensional concept of psychological well-being (Ryff & Keyes, 1995) and established that the study of well-being is not just about positive emotions or happiness only rather it should contain all the aspects of well-being. Psychological well-being refers to the achievement of one's full psychological potential and it comprises six dimensions, that is, autonomy; environmental mastery; personal growth and development; purpose in life; self-acceptance; and positive relations with others.

According to Myers (1993), happiness can be perceived as a lasting sense that life is fulfilling, meaningful, and pleasant. Happiness is a life experience marked by the preponderance of positive emotion. In other words, a life filled with satisfaction, meaningfulness, and pleasure would make a happy life.

According to Veenhoven (1994), happiness is a temperamental disposition to appraise events and situations in a particular way. He explained happiness as a lasting state of mind rather than as a passing mood and believed that happiness can be considered as a trait rather than as a transient emotional state. He further claimed that happiness can be regarded as a trait if it has temporal stability, cross-situational consistency, and inner causation.

According to Parducci (1995), happiness can be perceived as the summation of many psychological states, with varying degree of pleasure or pain. He postulated that happiness can be conceived as a 'glow' word. This description of happiness reflects the fluctuating, subjective experience (varying degree of pain/pleasure) that we perceive as important to us and assigned as pleasant experience according to our perception.

According to Sumner (1996), happiness can be described as having a positive attitude toward life, which has both cognitive and affective component. The ability to positively evaluate life such as the judgment we make which measures up favorably against standard or expectations reflect the cognitive component of happiness. On the other hand, a sense of well-being, or being able to find enrichment or feeling satisfied reflects the affective component of happiness.

According to Fredrickson (1998), happiness can be defined as high arousal positive affect. In her famous Broaden-and-build theory on positive emotions (Fredrickson, 2001), she claimed that there are ten positive emotions such as love, joy, serenity, amusement, awe, pride, gratitude, interest, inspiration and hope, which helps to expand one's cognitive, behavioral tendencies, and it will eventually help to build enduring personal resources. According to this theory, the ability to own and utilize positive emotions, as personal resources, would prove beneficial in combating against negative life-events, stressors and major challenges in life.

In another approach to defining happiness, Lyubomirsky and Lepper (1999) introduced a method to measure the global, subjective qualities of happiness by providing an overall assessment of the extent to which a person is happy instead of assessing positive and negative affect separately. This method of happiness measurement gives a relatively stable characteristic of happiness which is separate from life experiences, by focusing on the overall reported level of general happiness.

According to Veenhoven (2000), quality of life can be evaluated on four qualities: (1) the livability of environment (living conditions such as ecological (clean air), social (freedom), economic (growth and economic development), and cultural (education) characteristics), (2) the life-ability of the person (physical and mental health, knowledge, and skills), (3) the utility of life, which refers to moral perfection or compassion, and (4) an appreciation of life i.e. the affective and cognitive appraisals, described by terms such as subjective well-being, life satisfaction, and happiness. His concept of quality of life depicts the global balance of an individual in terms of environment, health, skills, and satisfaction which inculcates in shaping of the happiness level.

Happiness has also been referred to as subjective well-being by some researchers. The subjective well-being model by Diener (2000) is one of the most widely accepted definitions of happiness. There are three components in this model which include the cognitive appraisal of one's life (i.e., life satisfaction), positive affect and negative affect (i.e., emotions), which are viewed as two separate dimensions. The amalgamation of these components gives a holistic view of happiness (Pavot & Diener, 1993). In other words, subjective well-being can be defined as a combination of cognitive and affective evaluations. These evaluations include emotional reactions to events as well as the cognitive judgment of satisfaction and fulfillment (Diener, 1984).

Seligman's (2002) conceptualization of happiness consists of three components: experiencing positive emotion (the pleasant life), being engaged in life activities (the engaged life) - constantly seeking activities that allow us to be in *flow* which is defined as "a state of deep, effortless involvement"- Csikszentmihályi (2002), and finding a sense of purpose or meaning (the meaningful life). Research has shown that people who pursue these three pathways to happiness are most satisfied, with engagement and meaning having a greater influence (Seligman et al., 2005).

Veenhoven (2004) defined individual happiness as the degree to which a person positively evaluates the overall quality of life-as-a-whole, reflecting how much a person likes the life he/she leads. He further tried to explain the affective and cognitive components of happiness by claiming that happiness appears as an attitude towards one's own life, having some stability of its own with related feelings and beliefs. These feelings and beliefs can be considered as the 'components' of happiness (hedonic level of affect)

which can be experienced in terms different kinds of feelings, emotions, and moods, such as active/inactive and pleasant/unpleasant. When we assess how well we feel we typically estimate the pleasantness in feelings, emotions, and moods, which can be known as 'hedonic level of affect'. The average hedonic level of affect of an individual can be assessed over different periods of time i.e., hour, week, month, and year or over a lifetime to examine the current hedonic level but this does not entirely assess the subjective awareness of that average level because one can feel good most of the time without being fully aware. On the contrary, the cognitive definition of happiness affirms the degree to which an individual perceives his wants are met, as it can be observed that most adults evaluate their life with the use of reason and compare life-as-it-is with the notions of how one wants life-to-be.

According to Haidt (2006), one of the most important ideas in positive psychology is the 'happiness formula' which is represented as:  $H = S+C+V$ .

This is supported by research evidence (Lyubomirsky, 2007; Sheldon & King, 2001; Seligman, 2002) and interpreted as H being the level of happiness, we experience is primarily determined by our biological set point (S) plus the conditions of our life (C) plus the voluntary activities (V) we do. It can be said that although we are controlled by biological determinants and life circumstances to some extent, we can certainly manipulate and construct our own happiness accordingly by what we choose to do/decide.

According to Lyubomirsky et al. (2006), happiness is a multidimensional concept, comprising of unconscious, cognitive, and motivational processes unique to how life is perceived and interpreted by individuals. She explained that that happiness can be

experienced as both state and trait. Trait happiness can be defined as the happiness that remains relatively stable and consistent over time. On the other hand, state happiness fluctuates slightly, depending on mood and situational life experiences. For instance, state happiness would be present at the time of birth of one's child or a getting a good job, or lacking if one goes through loss or negative life events such as being involved in a car accident or experiencing the death of a loved one.

Later, Lyubomirsky (2007) described happiness as the subjective experience of joy and contentment, with a sense of positive well-being that life is good, meaningful, and worthwhile. She further revealed that happiness has a set-point which determines only 50 percent of happiness whereas a mere 10 percent can be attributed to differences in life circumstances or situations. And the remaining 40 percent of our capacity to achieve happiness lies within our power to change, emphasizing on the importance of how much of our happiness is within our own control.

According to Oishi et al. (2007) happiness has been termed as optimum well-being; the ability to maintain the balance of good life. In another research, Oishi et al. (2013) defined happiness as good luck and favorable external conditions, across cultures and time. The ability to utilize life circumstances for our own good has often been viewed as a fortunate/lucky individual, also called a happy person in other words.

According to Gilbert (2009), the meaning of happiness is 'anything we are pleased with' as our mood constantly change depending on life circumstance and our personal resources to effectively deal with situations. He focused more on thriving on the in-the-moment gratification of desire, rather than delayed gratification.

According to Baumeister et al. (2010) happiness is defined as subjective well-being, an experiential state that contains a globally positive affective tone. It can be conceptualized *affect balance*, indicating that pleasant emotional states essentially represent an aggregate of how one feels at different moments. Secondly, it can be conceptualized as *life satisfaction* which reflects an integrative, evaluative assessment of one's life as a whole rather than momentary feeling.

Seligman (2011) later improved and revised his earlier theory on three orientations to happiness (Seligman, 2002) into PERMA model of happiness, by including two more dimensions- accomplishment and positive relationships, in an attempt to explain the elements of happiness and ways of maximizing each element to reach a life full of happiness.

**PERMA Model of Happiness** (Seligman, 2011) constitutes five core elements: -

P- Positive Emotion (*Feeling Good*): An important element of PERMA model is the ability to be optimistic and have a positive outlook toward life, which can enhance certain areas in life such as relationships, work, and family. The ability to efficiently deal with the highs and lows of everyday life will likely increase the capacity of developing a healthy lifestyle.

E- Engagement (*Finding Flow*): Keeping ourselves engaged with activities will eventually help us to learn, grow and nurture personal happiness. It is important to accept that everyone has a different way of doing things and we all find enjoyment in different things. Engagement aspect of happiness focuses on the need of having something in our lives that would make us feel entirely absorbed into the present moment, creating a 'flow'



of blissful immersion into the task or activity, which will go a long way in enhancing one's intelligence, skills, and emotional capabilities.

R- Relationships (*Authentic Connections*): Relationships and social connections play an important role in our lives because we thrive on connection, love, intimacy, and a strong emotional and physical interaction with other humans. Building positive relationships with parents, siblings, and friends will form the much-needed support system during our difficult times.

M- Meaning (*Purposeful Existence*): Having a sense of purpose and meaning in life is important to live a life of happiness and fulfillment. Individuals should try to find the actual meaning of our life, rather than the pursuit of pleasure and material wealth which ultimately gives a reason to his/her life and that there is a greater purpose to life.

A- Accomplishments (*A Sense of Accomplishment*): Having goals and ambition in life to achieve things can give us a sense of accomplishment. People should make an effort to set realistic goals in life that can be met, as a way to derive a sense of satisfaction, pride, and fulfillment. It is important to have accomplishments in life in order to push ourselves to thrive and flourish.

### **1.3. THEORIES OF HAPPINESS**

In recent years, with the advent of positive psychology, various empirical contributions have been made which focus on analyzing happiness, life satisfaction, and well-being across the lifespan. However, the theoretical foundation underlying this core psychological explanation/definition of happiness needs to be justified. In this section, some of the important psychological theories on happiness are being outlined:

## **COGNITIVE THEORY OF HAPPINESS**

The cognitive theory of happiness assumes that happiness is a product of human thinking and reflects the discrepancies between perceptions of life-as-it-is and notions of how-life-should-be. Notions of how-life-should-be are assumed on the basis of collective beliefs and it varies across cultures. The basic assumption of this theory is that happiness is based on the comparison of standards, although there is a difference in the nature of these standards and ways of comparison (Veenhoven, 1991). This theory assumes that we have 'standards' of a good life and that we constantly weigh the reality of our life against these standards. These standards are derived according to societal norms and personal preferences, and vary accordingly rather than remaining fixed. In other words, individuals tend to judge life by what they think real life can be. Different individuals hold different standards, for instance, supposedly if we compare the lifetime differences of these standards then the focus is on whether we are actually doing better or worse than before. In other words, a happy youth will not necessarily mean happiness in adulthood. The social comparison variant stresses on how well we are doing relative to other people. Michalo's (1985) 'Multiple Discrepancies Theory' of happiness, assumes that we not only compare what we want with what others have but also with what we need and what we deem fair. The very idea of comparing standards can be observed as an outcome of socialization, involving the adoption of collective notions of the good life with minor modifications. Such collective notions draw heavily on the wider culture and shared history. A sociological explanation holds the viewpoint that we not only compare our self with our own standards, but we also appraise our life through the eyes of others, in other words, while assessing how happy we are we also estimate how happy other people think

we are. Multiple discrepancies theory assumes that happiness and satisfaction are functions of perceived gaps between what one has, wants, deserves, needs, expected to have 3 years ago or expects to have after 5 years in the domains of health, finances, family, job, friendships, housing, area, recreation, religion, self-esteem, transportation, and education.

### **AFFECTIVE THEORY OF HAPPINESS**

Affect theory postulates that happiness is a reflection of how well we feel generally. According to this theory, we do not ‘calculate’ happiness, but rather ‘infer’ it, for instance, “I feel good most of the time, hence I must be happy” (Schwartz & Strack, 1991). Happiness is related to an individual’s happy perception, life satisfaction, and the ability to create a balance between positive and negative feelings which leads to better functioning in life. The overall evaluation of life is manifested by the most salient affective experiences which are typically intense affects. Affective theory of happiness views mood as an affective meta-signal that, contrary to feelings and emotions, is not linked to specific objects (Veenhoven, 1991). Emotions reflect an affective reaction to something and prepare the organism for a response, whereas negative mood signals that there may be something wrong and bring forth the urge to find out what that is. It may be important to understand that affects are an integral part of our adaptive mechanism and is linked with the gratification of human needs which are vital requirements for survival, and obtained through affective signals such as hunger, love, and thirst. Perhaps, human beings have an innate tendency to express, understand and experience their basic needs through various emotional reactions. Needs in affective theory should not be equated

with wants in cognitive theory of happiness. It may be important to note that needs are inborn and universal whereas ‘wants’ are acquired and vary across cultures.

### **SET POINT THEORY OF HAPPINESS**

Set point theory of happiness (Diener & Lucas, 1999; Lyubomirsky, 2007; Lucas, 2007) argues that individuals are born with a predisposition to a certain level of happiness, based on genetics and personality. Even life-changing events, such as the birth of a baby, marriage or the death of a loved one, only have temporary effects on the individual’s life satisfaction, and after some time will return to the original, biologically-determined level of well-being. According to Lucas (2007), this process is called *hedonic adaptation*, defined as “the process by which individuals return to baseline levels of happiness following a change in life circumstances”. Although happiness levels are moderately stable over time, this stability does not mean lasting changes. Happiness levels do change but adaptation is not inevitable, and life events do matter. The set-point theory of happiness postulates that our level of subjective well-being is determined primarily by heredity and by personality traits ingrained in us early years of life. This theory further claims that happiness remains fairly constant throughout our lives because of pre-determined heredity and genes. Diener and Lucas (1999) further added that “the influence of genetics and personality suggests a certain limit on the degree of subjective well-being because changes in the environment which may be important for short-term well-being lose salience over time through processes of adaptation, and have small effects on long-term subjective well-being”. Therefore, it can be said that all individuals in society have different but stable levels of well-being, which are not supposed to change across the lifespan.

According to Lucas (2007), there are three main arguments in favor of the set-point theory of life satisfaction. He provided evidence for the first argument by showing long periods of constant levels of life satisfaction, even under changing circumstances and claimed that up to 40% of the variance in life satisfaction measures is stable up to a period of 20 years. The second argument claims that over 80% of the variables that determine well-being are inheritable, leaving only 20% of the variance accounted for by demographic factors. The third argument posits that personality variables (extroversion and neuroticism) are relatively strong predictors of happiness. Nevertheless, he also found some contradictory evidence that well-being levels do in fact change over time although these changes appear to be permanent while exploring individual adaptation to major life events, such as marriage, unemployment, and disability (Lucas, 2007). He concluded that long-term levels of happiness do change but still appear “moderately stable over time”. Another researcher (Lyubomirsky, 2007) also revealed that happiness has a set-point which determines only 50 percent of happiness, a mere 10 percent can be attributed to differences in life circumstances or situations, and the remaining 40 percent lies within our control to change/adapt our capacity to achieve happiness.

### **ADAPTATION-LEVEL THEORY OF HAPPINESS**

Studies on happiness by Brickman and Campbell (1971) explored to understand why certain groups of people with varied resources (very rich people and very poor people) seemed to have similar levels of happiness. This phenomenon was explained in the *adaptation-level theory of well-being*, which is also known as the hedonic treadmill theory (Kahneman, 1999). According to this perspective, even after major life events such as winning the lottery or becoming paraplegic, individuals return to a ‘baseline’

level of well-being (Brickman et al., 1978; Kahneman, 1999). Generally, happiness involves a ‘set point’ which is maintained at a constant level throughout their lives, through hedonic adaptation (Campbell, 1971). *Hedonic treadmill* may be defined as a mechanism for reducing the affective reactions of emotional events. The mechanism of how hedonic adaptation works is often conceptualized as a treadmill since we continually maintain a certain level of happiness. It can also be conceptualized as a functioning similar to a thermostat (a negative feedback system) that works to maintain an individual's happiness set point. However, some scientists have provided compelling evidence that particular circumstances can have a serious effect on the path of well-being across the lifespan (Headey, 2008). Winter et al. (1999) maintained that individuals still suffer from the consequences of major life events long after the occurrence of an event and do not return to their original level of happiness. Likewise, Huppert (2005) proposed that individuals experience different emotional reactions of varying magnitude which can alter well-being, by providing evidence that “set point for happiness is less set than it appears”. She further added that individuals with same genes manifest different levels of life satisfaction, which strongly stand against the hypothesis of a baseline level of well-being based on heredity.

### **PERSONALITY THEORY OF WELL-BEING**

Costa and McCrae's (1980) personality theory of well-being claimed that individuals are born with certain personality traits that do not change significantly across the lifespan. Supporting research evidence by Myers and Diener (1995) claimed that “the even distribution of happiness cuts across all demographic classifications of age, economic class, race, and educational level” and that happiness does not depend significantly on

external circumstances. Lykken and Tellegen (1996) confirmed that hereditary characteristics are strong determinants of life satisfaction, which account for 50% of the variance in well-being. In later studies, Lykken (2000) concluded that hereditary traits can be accounted for 100% of the variance in well-being. This provides strong evidence that affective reactions we experience and perceptions of things that happen to us are determined by our personality traits to a great extent. It is generally assumed that these traits have a genetic component which can ultimately mold the evaluation of life. According to Heady and Wearing (1992), the central theme of the dynamic-equilibrium theory is that personality can affect happiness through its impact on the course of life-events. Important evidence for personality theory of well-being was provided by DeNeve (2011), who showed that individuals indeed 'exhibit a baseline level of happiness' by specifically illustrating that individuals with a longer version of the serotonin transporter gene (*SLC6A4*) tended to report higher levels of happiness. On the contrary, in another research (Frey, 2008), it was shown that demographic variables such as socio-economic status, income, marriage, education, and religiosity are significantly associated with individual happiness. However, no demographic variable accounts for more than 3% of the variation in self-reported well-being. All these research findings provide compelling evidence that personality also plays an important role in determining the level of happiness.

### **INDIAN CONCEPT OF HAPPINESS- *Hitopadesia***

According to Indian philosophy, happiness and unhappiness (*sukha* and *duhkha*) go hand in hand and form the part and parcel of normal life in this materialistic world. Happiness and unhappiness revolve around four core concepts: righteousness (*dharma*), wealth

(*artha*), desires (*kāma*), and liberation (*mokṣa*), that represent the major life goals as mentioned in the Caraka Samhita and Sutra Sthana (DelleFave, 2013; Gotise & Upadhyaya, 2017). The proposed *Hitopadesic* model has six successive phases: knowledge, humility, worthiness, riches, righteousness, and finally happiness. Knowledge can be conceptualized in two forms: first, as self-awareness or self-knowledge, that is the knowledge of one's innate dispositions which can further help to find one's calling, and secondly as knowledge acquisition in the person's areas of interest. Humility is a multidimensional construct comprising of self-control, self-acceptance, and self-realization (Newman, 1982; Kesebir, 2014; Tong et al., 2016). Worthiness, the third component of the model, along with knowledge and humility represents the personal development process, as an altruistic way to bring happiness to others as well as to self (Wiese, 2011). Worthiness brings riches, which has been connected with hedonism (subjective well-being). However, the proposed model incorporates money within the eudaimonic living. That is, riches are an instrument to practice righteousness (*dharma*) that again in return protects the riches; that is, both these components of the model are acting to their mutual advantage. Thus, contentment can be achieved by practicing righteousness and it eventually brings about inner peace, satisfaction, and above all happiness as harmony (*sāttvic sukha*). The *sāttvic sukha* further helps in inclining towards the soul and achieving liberation from the cycle of reincarnation. In sum, the *Hitopadesic* model of happiness depicts a tripartite lifestyle where one could enjoy hedonic pursuits such as wealth (*artha*) and pleasures (*kāma*) modestly, in the guiding light of righteousness (*dharma*) or virtuousness.



#### **1.4. CONCEPTUAL FRAMEWORK OF THE PRESENT STUDY**

In the previous sections of this chapter, a brief introduction on psychological definitions of happiness and existing theories on happiness were emphasized. This section of Chapter-I will highlight the variables under study as the present study will focus on examining happiness across three age groups, taking into consideration the role of certain socio-demographic and psychosocial variables in relation to happiness. Here, the focus is on the association between happiness and socio-demographic variables, such as age, gender, religion, residence, marital status, family type, education, occupation, and income. Additionally, the association between happiness and psychosocial variables, namely self-esteem, stress, personality, life satisfaction, and positive relationship with others will also be emphasized.

##### **1.4.1. HAPPINESS AND SOCIO-DEMOGRAPHIC VARIABLES**

Research has found that certain socio-demographic differences such as gender, age, race, income, and education can impact an individual's level of happiness (Brickman, Coates, & Janoff-Bulman, 1978; Kim-Prieto et al., 2005). There are various social and demographical information which can influence the way we report/experience happiness. Social stratification theory states that cultural and socio-demographic factors play an important role in happiness (Davis, 1984). In this view, social stratification can be defined as a grouping of people based on similar attributes, such as gender or race. This stratification can be universal and persist over time as it can impact happiness (Yang, 2008). Socio-demographic differences such as religion, rural/urban residence, type of family, education, and occupation can also affect an individual's reported happiness. Since the present study specifically deals with the happiness-age link, the next section

will represent how happiness varies across age groups, and what kind of possible relationship exists between the two.

#### **1.4.1.1. HAPPINESS AND AGE: The three trends of U-curve, inverted U-curve and linear relationship between happiness and age**

The impact of age on happiness appears to be ambiguous according to several research findings as there are different trends of relationship between age and happiness. Past research indicated that there are three major trends to explain the relationship between happiness and age. First, the relationship between happiness and age is in the form of U curve, some of the research findings supporting this particular relationship are being provided in Table 1.2. According to Blanchflower and Oswald (2008), happiness is highest in late adolescents to early 20's, reaches the lowest in midlife and the pattern is universal. With the use of different measures as indicators of well-being, some researchers reported that positive affect decreases and negative affect increases in older age groups (Hansen & Slagsvold, 2012; Hellevik, 2015). Similarly, there are many other studies that support this trend of finding (Gredtham & Johannesson, 2001; Frey & Stutzer, 2002; Frijters & Beatton, 2012). This trend of relationship between age and happiness can be interpreted as having greater happiness during early years and late years of our life, but happiness goes down during mid-life, most probably due to the reason that one experiences many setbacks such as social, financial, and emotional pressure to cope with success or failure, the challenge to adapt to the role transition of becoming a responsible individual, maintaining social status, the demand to support family and old parents, and many other such mid-life crisis. In another research study, Oshio and Kobayashi (2010), using population-based survey data of Japan, found that younger

individuals consistently tended to feel happier than their older peers. Gredtham and Johannesson (2001) found a U-shape relationship between age and happiness, implying that those aged 18-34 years and greater than 60 years reported greater happiness than those aged 35-64 years. This U-shape relationship was further evidenced by Frey and Stutzer (2002), and Peiro (2006).

The second trend of the relationship between happiness and age can be described as the inverted-U curve. Researches by Howell et al. (2006) found that age and happiness were inverted U-shape correlated, meaning that individuals' happiness levels would reach its maximum at the age of 50, then decrease afterward. Easterlin (2006) also reported a mild inverted U-shaped happiness curve across lifespan, with a lower level at age 18 and a high point around age 50, and then declining thereafter. Similarly, Mroczek and Kolarz (1998) found that an inverted U-shaped relation between age and life satisfaction with peak life satisfaction at around 65 years. This inverted U-shape relationship was further reported by many other researchers some of which are provided in Table 1.3 for further details. This trend of relationship between happiness and age can be explained as having greater happiness level during mid-life in comparison to early or late years of life, which means that young people and older people experience less happiness than those who fall under the middle years. Young adults, including late adolescents and those in their early twenties and elderly, about the age of retirement or more, probably have more stressors and challenges to deal with which negatively affects their happiness level.

*Table 1.2: Studies on U-curve relationship between happiness and age*

| <b>Author</b>                  | <b>Research Concept</b>   | <b>Participants</b>   | <b>Measure(s)</b>   | <b>Findings</b>   |
|--------------------------------|---|---|---|---|
| Blanchflower and Oswald (2008) | Investigation on the relationship between well-being and age as counterargument of whether happiness is either flat or slightly increasing in age, or is there possibility of convex relationship between well-being and age. | World Values Survey data from 1981-2004, 1600000 from eastern and western Europe, and developing countries, Avg. age for Men (M=46.9) and Women (M=39.1).                                     | Single item happiness measure with score ranging from 1= very unhappy, 2= not too happy, 3= neither happy nor unhappy, 4= pretty happy and 5= very happy. | U-shape relation between age and reported well-being observed in 72 nations (developed and developing).   |
| Hansen and Slagsvold (2012)    | Re-examination of whether subjective well-being decline sharply with age.   | Two-wave (2002-03 & 2007-08) panel data from Norwegian Life Course, Ageing, and Generations (NorLAG) study, 40-85 yrs. age group, 3750 respondents who completed questionnaire in both waves. | 5-items Satisfaction with Life scale, 11-items Positive and Negative Affect Schedule, 20-items Center for Epidemiologic Studies Depression scale.         | Negative affect and life satisfaction were negatively related to older age longitudinally, but depression and positive affect were negatively related to older age cross-sectionally. |
| Hellevik (2015)                | Is happiness constant throughout our lives or only with occasional event (marriage/birth/promotion), or do we actually get happier as life gets on and learn to be content with what we have?                                 | Norwegian Monitor (NM) study, series of non-overlapping surveys carried out every year from 1985-2013, 15-79 yrs., 50000 respondents.   | Single item subjective well-being question with four options.   | There was U-shaped association between subjective well-being and age when controlling for family situations and health.   |

|                            |  |  |   |   |
|----------------------------|--|--|---|---|
| Frijters and Beaton (2012) | Do we become happier or less happy as we age? Is happiness relatively constant with only occasional event temporarily raising or reducing happiness level? | Three sets of panel data, i.e., the German Socio-economic Panel (GSOEP, 2008), British Household Panel Survey (BHPS, 2010) and Household Income Labour Dynamics Australia (HILDA, 2008). | For GSOEP and HILDA, life satisfaction was measured with single question on a scale from 0 to 10.<br><br>For BHPS, life satisfaction was measured with single question on a scale from 0 to 7.  | Raw data supported weak U-curve for age range of 20-60 years. Higher happiness score observed around the age of 60, followed by a sharp decline after 75.                     |
| Mroczek and Kolarz (1998)  | The effect of age on happiness, measured in terms of positive and negative affect.   | 2727 participants in the Midlife in the United States Survey (MIDUS), 25-74 yrs., through mailed questionnaire and random-digit phone dialing procedure.                                 | Positive Affect and Negative Affect Scale, Midlife Development Inventory derived from Affect Balance Scale, Composite International Diagnostic Interview, Manifest Anxiety Scale, Health Opinion Survey, General Well-being Schedule and Center for Epidemiological Studies Depression Scale. | Well-being, defined by positive affect, showed older people happier than other adults. However, negative affect was highest among young adults and lowest among older adults. |

*Table 1.3: Studies on inverted U-curve relationship between happiness and age*

| <b>Author</b>                 | <b>Research Concept</b>   | <b>Participants</b>  | <b>Measure(s)</b>   | <b>Findings</b>  |
|-------------------------------|---|--|---|--|
| Easterlin and Sawangfa (2007) | The prediction of happiness in terms of satisfaction on four domains - finances, family life, work, and health. | Data were from United States General Social Survey (GSS) during 1973-1994.   | Three response options for happiness and financial satisfaction, four response options for job satisfaction, seven response options for family and health satisfaction. | People reported greatest happiness at midlife. Happiness increase during 18 to 51 years and declines thereafter, with maximum happiness at around 50 year.   |
| Mroczek and Spiro (2005)      | Change in well-being in terms of life satisfaction over age using individual growth-curve modeling.             | Data were from 1927 participants in the Veterans Affairs (VA) Normative Aging Study (NAS), over a 22-year period (1978-1999), within age range 33-92 (M=55). | 11-item version of the Life Satisfaction Inventory: Form A (LSI-A; Neugarten, Havinghurst, Sheldon, & Tobin, 1961).   | Weak inverted U-curve relationship reported between age and life satisfaction, with maximum at 65 years and declining thereafter, but significant individual differences in rate of change was observed. |

*Table 1.4: Studies on linear relationship between happiness and age*

| Author                  | Research Concept   | Participants   | Measure(s)   | Findings  |
|-------------------------|--|--|--|---|
| Myers and Diener (1995) | Is happiness related with age? Does being young, middle-aged or newly retired matter in happiness?           | Age and well-being were examined in 16 nations. Data from 169776 people, sampled from 1980 to 1986, as reported by Inglehart (1990).   | Well-being measured in terms of life satisfaction and happiness. Life satisfaction scores range from 1 ( <i>not at all satisfied</i> ) to 10 ( <i>very satisfied</i> ). Happiness assessed using four categories: <i>very happy</i> ; <i>rather happy</i> ; <i>not very happy</i> ; and <i>not at all happy</i> .  | There is even distribution of well-being over age. External circumstances do not affect one's reported happiness level. |
| Thomas et al.(2016)     | The linear and non-linear trends of physical, cognitive, and mental health over adult lifespan was examined. | Cross-sectional data from 1546 people between 21 to 100 years selected using random digit dialing that included telephone interviews and in-home surveys of community-based adults without dementia. | Physical Health- 36-Item Short-Form Health Survey(SF-36)<br><br>Cognitive function- Modified Telephone Interview of Cognitive Status<br><br>Mental health- 3 positive measures (Happiness Subscale of the Center for Epidemiological Studies – Depression scale (CES-D), the Satisfaction with Life Scale, composite of Vitality, Social Functioning, Role-Emotional, and Mental Health subscale total scores from the SF-36)<br><br>3 negative measures (Brief Symptom Inventory Anxiety Scale, Patient Health Questionnaire Depression Module (PHQ-9), and Perceived Stress Scale. | There exists a possible linear improvement in mental health beginning in young adulthood.                               |

Contrary to the above mentioned two trends of the relationship between age and happiness (U-curve and inverted U-curve), age has been found to be correlated with increased happiness (Yang, 2008). As individuals age, they gain more insight, satisfaction, and self-esteem from their formative experiences, which in turn, can increase their quality of life and happiness (Gove, Ortega, & Style, 1989). According to Diener et al. (1993), age was not associated with happiness because individuals would learn to adjust their aims and goals as they grew older.

Furthermore, older adults have more realistic expectations and as a result may cope better with life negative events than younger adults (Argyle, 2003). In addition, older adults may experience less stress from work as they move into retirement. There are also other factors that are associated with aging, such as, relative income, marriage, number of children, and religious attendance that all have been found to strongly affect an individual's sense of well-being (Ellison, 1991; Waite, 1995; Easterlin, 2003; Kohler, Behrman, & Skytthe, 2005). Some of the research which supports the linear relationship between happiness and age is outlined in Table 1.4 for further details. Thomas et al. (2016) claimed of linear improvement in various attributes of mental health despite a possible deterioration in physical and cognitive functioning in older age group. Likewise, Cartensen et al. (1999) reported that as adult age, they are able to better regulate their emotions and thus experience increased happiness in later life. In a meta-analysis of empirical studies on happiness, Myers and Diener (1995) reported that there is an even distribution of well-being over age and that happiness does not depend significantly on external circumstances. Deaton (2008) claimed that the relation between age and life satisfaction differ across countries and culture.



It is observed that the three major trends of the relationship between happiness and age (U curve, inverted U curve, and linearity) are based on different indicators of happiness. In some research, a single item measure was used but others employed multiple items. Besides, categorization of age for the data analysis is also different across the studies. Therefore, the following observations may be made about the relationship between happiness and age:

- 1) The relationship between happiness and age could be described in a U curve if the indicators of happiness are life satisfaction, subjective well-being, and positive affect.
- 2) Age may play a role in the happiness of an individual in the form of inverted U curve if the indicators of happiness are the overall perception of satisfaction with finance, job, family and health, and life satisfaction.
- 3) Happiness may be influenced by a person's age in the form of a linear graph when happiness is measured by positive attributes (such as Happiness Subscale of the Center for Epidemiological Studies - Depression scale (CES-D), the Satisfaction with Life Scale, Composite of Vitality, Social Functioning, Role-Emotional, and Mental Health subscale).

#### **1.4.1.2. HAPPINESS AND GENDER**

Gender is an important socio-demographic variable which has inconsistent findings in relation to happiness and well-being research. A meta-analysis of ninety-three studies by Wood, Rhodes, and Whelan (1989) found a small but statistically significant gender difference in happiness, with women reporting greater happiness than men, indicating that gender was a minor determinant of happiness. However, more recent data suggest these

gender differences may have disappeared and potentially may have inverted, with women reporting a decline in happiness (Stevenson & Wolfers, 2008). Further studies revealed that males were associated with a lower likelihood of being happy (Gredtham & Johannesson, 2001; Frey & Stutzer, 2002; Subramanian et al., 2005). This is due to the fact that males were less inclined to share their negative emotions with others as compared to females (Nolen-Hoeksema & Rusting, 1999). On the contrary, another group of researchers (Clark & Oswald, 1994; Theodossiou, 1998; Umberson et al., 1996) found that males tended to be happier than females as females were more likely to face distress in social relationships that could result in unhappy feelings.

#### **1.4.1.3. HAPPINESS AND RELIGION**

Long ago, the ancient Greek philosopher Aristotle established that the very purpose of human existence is to achieve happiness (Ross, 2000). Undoubtedly, achieving happiness has been the underlying central issue in major world religions such as Christians (Catholics and Protestants), Hinduism, Islam, and Buddhism. Different religions across the world view both happiness and suffering as an integral part of human existence, just like the two sides of the same coin. Religion is considered as one of the important factors which enhances happiness, as researchers found that there is a positive association between religiosity and happiness (Argyle & Hills, 2000; Francis, Jones, & Wilcox, 2000; Francis & Robbins, 2000; Lewis, Maltby, & Day, 2005). However, some studies have found no association between religion and happiness (Lewis, Lanigan, Joseph, & De Fockert, 1997; Lewis, Maltby, & Burkinshaw, 2000).

The major religions in the world are Christianity, Islam, Hinduism, Buddhism, and Judaism (Hackett et al., 2012). According to Roman Catholics, happiness can only be achieved after death. However, ethical behaviour during life is solely responsible for bringing happiness and salvation. Moral self-control is more important to achieve relative happiness. The other branch of Christianity called Protestantism also recognizes the ethics of hard work as a path to salvation. According to Protestants, salvation or perfect happiness after life depends only on faith, which can be achieved through discipline and hard work as a way to fulfillment. Islam sees the path of happiness as an ethical path, where happiness and well-being represent the enlightenment and enrichment of the soul. Buddhism describes happiness as an inner feeling, a mental state. Happiness in life can be achieved by following ethical behaviour which includes self-knowledge, respect for others and nature, as well as compassion. Hinduism points to the four *purusharthas*, or aims, of human life: *artha* (material and physical well-being), *kama* (social recognition), *dharma* (righteousness), and *moksha* (ultimate happiness).

#### **1.4.1.4. HAPPINESS AND RURAL/URBAN RESIDENCE**

A variable that has not received much attention in studies on happiness is location. In a research on happiness and location of residence, Florida (2008) discusses how place affects happiness, stating that individuals residing in different places tend to value the attributes of the place as determinants of happy. Thus, happiness might vary by location of residence to some extent. Survey data collected in 2005 by the Pew Research Center indicates that respondents were slightly happier if they lived in suburbs or rural areas in comparison to cities. The Pew study also found that respondents in Sunbelt locations were happier than respondents living in a cold climate (Pew Research Center, 2006).

More recently, data collected by Gallup indicates that well-being is higher in large metropolitan areas compared to small towns and rural areas (Gallup Organization, 2010). According to Sander (2011), residence not only influences and shapes the sense of everyone's life but also the level of perceived happiness. Research has shown that people who live in areas outside the city, suburbs or rural, are slightly happier and satisfied with their place of residence in relation to urbanite (Pateman, 2011; Sander, 2011).

#### **1.4.1.5. HAPPINESS AND MARRIAGE**

The effect of marital status on happiness was found to have varying effects between being married to being a never-married single and, to being divorced or widowed (Lucas & Dyrenforth, 2005). Research evidence showed that there is a small increase in subjective well-being during the transition from singlehood to marriage (Haring-Hidore et al., 1985; Williams, 2003; Lucas, 2005). Quite the opposite, the experience of divorce or the death of a spouse has a greater adverse effect than the positive effect of being married (Lucas, 2005). One needs to consider the positive effect of having a spouse, being able to enjoy marital status as husband and wife in the society, the merits of being able to communicate and express oneself to partner supposedly contribute toward building better and healthy lifestyle which will go a long way in enhancing our level of reported happiness. According to Dush and Amato (2005), there exists a steady, linear relationship between various stages of relationship commitment and happiness, such as the shift from singlehood to steady dating to marriage. In later research, they compared the effects of marital status and 'relationship happiness' on multiple measures of happiness and found that the correlation between marital status and 'life happiness' was positive but modest ( $r = 0.15$ ), whereas 'relationship happiness' had a considerably

stronger correlation with 'life happiness' ( $r = 0.42$ ). Another study by Tokuda and Inoguchi (2008) found that marital status was significantly associated with happiness. A research trend was reported wherein married individuals tended to feel happier than the single, divorced and widowed which shows that having a partner in life would prove beneficial to our happiness level (Morawetz et al., 1977; Oswald, 1997; Gredtham & Johannesson, 2001; Clark & Oswald, 2002; Subramanian et al., 2005).

#### **1.4.1.6. HAPPINESS AND TYPE OF FAMILY**

Family is considered to be one of the most important life domains which affect the personal happiness of people across cultures. Previous studies have shown that family life affects happiness to a great extent (Chilman, 1982; Argyle, 1987; Rodgers & Bachman, 1988). Chilman (1982) claimed that even though societal views of marriage and family have undergone dramatic transformations and fundamental changes, family life is still widely perceived as being central to life satisfaction and happiness; furthermore, married people have an advantage over those who are single, divorced or separated. The existing literature suggests that healthy family relationships, strong family ties and adequate interaction among family members are strongly positively associated with individual well-being. Research findings (Takeda et al., 2004) showed that the joint family setting provides a number of rewards, including social support, prestige, greater control and power within the family. Although joint family set-up has the advantage of having better social support for members, more maturity, closeness to traditions, and respect for elders but it falls short in the fields of individual happiness, personal freedom, attention to children and the members tend to have more responsibilities. A nuclear family, on the other hand, enjoys the benefits of more happiness, freedom, attention to children and

fewer responsibilities, but has the problems of lower tolerance among individuals, lower maturity, lack of adjustment capabilities and self-centeredness. In one of the Indian researches on happiness and type of family, findings are indicative that Indian society in the 21st century has become a fast-changing society. The growing needs of a person are forcing to opt for nuclear family structure. It was observed that the nuclear family set-up can provide a certain type of closeness which a joint family cannot. The smaller family size allows for individualized attention towards children. Although, the nuclear family model does not guarantee success or happiness, but it can provide a basis for obtaining these ideals (Kumar & Tiwari, 2016).

#### **1.4.1.7. HAPPINESS AND EDUCATION**

In terms of education, higher educated individuals were found to have happier feelings than the lower educated individuals (Oswald, 1997; Gredtham & Johannesson, 2001; Subramanian et al., 2005; Tokuda & Inoguchi, 2008). In contrast, Howell et al. (2006) found that education was negatively associated with well-being. Campbell et al. (1976) and Diener et al. (1993) observed that there was no significant relationship between education and well-being and further concluded that the impact on social well-being was attributable to income but not education. This finding was also evidenced by Clark and Oswald (1996), Theodossiou (1998) and Helliwell (2003) that income has been found to be a stronger predictor of happiness than occupation or education. However, education has an independent effect on happiness and has a stronger effect on those who are less well off. Perhaps this is because education can free them from material concerns, despite the likelihood that it can also raise expectations (Campbell, 1981).

#### **1.4.1.8. HAPPINESS AND OCCUPATION**

There are several studies which focused on the relationship between happiness and occupation/employment. Studies by Clark and Oswald (1994), Gerlach and Stephan (1996), Winkelmann and Winkelmann (1998), and Gredtham and Johannesson (2001) concluded that being unemployed was highly correlated with unhappy feelings. A likely reason may be due to financial constraints due to unemployment. On the other hand, it was argued that employed individuals, who tended to allocate very less time for physical exercise and leisure activity, were likely to have poorer well-being (Frank, 2005). However, the study by Peiro (2006) documented that employment status did not possess any significant impacts on happiness. Those without jobs are very unhappy, as well as being depressed, apathetic and of low self-esteem. In terms of the direction of causation, it has been found that unemployment causes unhappiness (Winefield, Tiggemann, Winefield, & Goldney, 1993). One reason for the unhappiness of the unemployed is that they are short of money, but it has been found that they are still unhappy with income held constant (Campbell, Converse, & Rodgers, 1976). The retired are in a sense unemployed, but the situation has a different meaning for them than it has for those who cannot find work. They are happier on average than those still at work (Campbell et al., 1976), apart from those who had good jobs and high job satisfaction, and who now feel lonely and bored since they miss their work or their workmates (Kasl, 1980).

#### **1.4.1.9. HAPPINESS AND INCOME**

The effects of income on happiness are mixed. Prior studies (Oswald, 1997; Gredtham & Johannesson, 2001; Subramanian et al., 2005; Howell et al., 2006; Tokuda & Inoguchi,

2008; Oshio & Kobayashi, 2010) found that income was positively correlated with the level of happiness. Kahneman and Krueger (2006) established that a moderate increase in individual income could only increase individuals' happiness in the short term. However, Clark and Oswald (1994), Theodossiou (1998), Winkelmann and Winkelmann (1998) concluded that money could not buy happiness as there was no significant relationship between income and happiness. Frank (2005) found an increase in income would not cause much change on population's well-being because people could adapt to changes in quality of life over time. Income or perceived income is an important factor when examining happiness and well-being (Dyanan & Ravina, 2007). This is partially due to the reference-income hypothesis, which suggests that individuals care more about how their income is perceived as others, rather than the absolute level of income that they have (Boyce, Brown, & Moore, 2010). Perceptions of income inadequacy can be a meaningful psychological measure of the financial adequacy (Sun et al., 2009). Money can buy a minimal level of happiness (i.e. not being in poverty) but it is the perception of wealth as compared to others that can have a more substantial impact on happiness (Ball & Chernova, 2008).

#### **1.4.2. HAPPINESS AND SELF-ESTEEM**

Self-esteem is an important psychological construct which has attracted the attention of many researchers because of its underlying effect on one's mental health and personal resources (Mruk, 2006; Neff & Vonk, 2009; Victoria & Sim, 2013). It refers to a person's sense of his/her own worth or value. Adler and Stewart (2004) defined self-esteem as the degree to which a person values, appreciates, or likes himself or herself. According to Rosenberg (1965), self-esteem is one's favourable or unfavourable attitude toward



oneself. The general speculation is that self-esteem is a feeling people have towards themselves in regards to their adequacy, competence or self-worth and it can further be divided into situational or global, otherwise known as 'state vs. trait' or 'unstable vs. stable' (Baumeister et al., 2003; Lyubomirsky, Tkach, & DiMatteo, 2006; Miller & Daniel, 2007; Swan et al., 2007; Neff & Vonk, 2009). Situational self-esteem refers to the type of self-esteem that is related to everyday experiences, circumstances, and fluctuations in mood, and it remains relatively unstable due to varying factors that affect it. Whereas global self-esteem is considered to be more stable amongst the other types of self-esteem and it represents a consistent evaluation of one's self-worth throughout lifespan and remains relatively constant (Furr, 2005; Mruk, 2006). The relationship between self-esteem and happiness significantly contribute to improve the quality of life as they both have positive impacts on people's lives. Empirical evidence suggests that there exist a significant and positive relationship between self-esteem and happiness (Furr, 2005; Lyubomirsky, Tkach, & DiMatteo, 2006; Mruk, 2006). In other words, it can be interpreted that people with high self-esteem appear to be happier and are less likely to be depressed, and lead a happier more fulfilling life. However, the degree of existence of this relationship still remains inconclusive. Lyubomirsky, Tkach, and DiMatteo (2006) also indicated that self-esteem and happiness are synonymous, interrelated constructs, which leads to the conclusion that self-esteem is a precursor for or sub-component of happiness. Another aspect of self-esteem, also known as, personal self-esteem directly predicts life satisfaction, since research has demonstrated a similar pattern of relationship between self-esteem and life satisfaction among college students (Lucas et al., 1996), retired persons (Lyubomirsky et al., 2006) and adolescents (Rey et al., 2011). Existing

literature showed that the relatively high degree of relations among self-esteem, optimism and life satisfaction, resemble the similar patterns of relations with various aspects of individual functioning such as health, job success, and interpersonal relationships, which together holds a general level of happiness (Schimmack & Diener, 2003).

### **1.4.3. HAPPINESS AND STRESS**

In psychological term, stress may be defined as the subjective experience/feeling of strain and pressure as it is considered as a type of psychological pain (Simandan, 2010). Small amounts of stress may be desired, beneficial, and even healthy, however, excessive amounts of stress, may lead to bodily harm (Sapolsky, 2004). Stress can be both external and internal; external stress arises from the environment surrounding us, whereas internal stress may arise from perceptions which make an individual experience anxiety or other negative emotions such as psychological pressure, discomfort, etc.(Folkman, 2013). Stress can be experienced when we perceived something as threatening and the resources for coping with threatening situations are not enough to meet what the circumstances demand. Selye (1976) defined stress as the response of the body to any demand placed upon it. In today's time, stress often stems from being unable to cope with life demands because of the lack of resources (financial constrain or lack of social support). According to Lazarus and Folkman (1984), psychological stress refers to the negative (cognitive and emotional) states elicited when people realize that the environmental demands far exceed their ability to cope. Stress can be considered as a broad, general construct which consists of various specific subtypes, such as time stress (pressure), feelings of stress (perceived stress), and physiological stress. Stress is often conceived as the negative subjective experience, i.e., an aversive feeling state that can diminish one's well-being. But one

needs to know how exactly stress is related to subjective well-being or happiness as both can influence a person's quality of life. It may be important to note that stress can negatively affect happiness and at the same time, happiness can positively reduce the negative effect of stress. Stress can occur based on both objective conditions and affective/cognitive appraisals. People who cannot fulfill basic needs, or live in poor social and economic conditions, may experience feelings of stress as they struggle to improve their quality of life or become more dissatisfied with their lives. In other words, it can be said that those who are less happy about their overall life may also experience stress more easily and frequently. Happy people can effectively deal with stressors as they are believed to have adequate personal resources (such as resilience, cheerfulness, psychological hardiness etc.) to handle the negative impact of stressors. Stress can adversely affect the quality of life through its impact on people's physical and mental health. Chronic stress causes serious physical illness such as heart disease, and has been linked to diabetics, cancer, and other ailments (Miller & Blackwell, 2006; Wargo, 2007).

#### **1.4.4. HAPPINESS AND PERSONALITY**

Personality is perceived as the unique, individual, and stable characteristic that differentiates individual from one another as it consists of emotion, values, attitude, and aptitude. It reflects the growth and development of the psychological system (such as thoughts, belief system, coping mechanism etc.) of an individual (Digman, 1990; Goldberg, 2013). There are various personality theories to explain the complex human nature and the Big Five model of personality is one of the most popular models of personality in social science research. According to Big Five model of personality, the human personality consists of five factors: Openness to experience, Conscientiousness,

Extroversion, Agreeableness, and Neuroticism (Goldberg, 1981; Digman, 1990; Carver et al., 2013).

Openness to experience may be defined the tendency of paying close attention to the external world surrounding us, and it resembles the concepts of having an active imagination and a curious mind. It reflects the artistic inclination, and a wide range of interests, excitability, unconventional ways of doing things and the readiness to explore in an individual. Individuals with a high level of openness to experience are known to utilize unconventional methods or approaches to achieve goals/gain opportunities (Ryckman, 2008). The degree of curiosity and sensitivity to new ideas, values, and emotions to live an experientially rich life reflect the ability of openness to experience. Those with a high degree of openness to experience have a tendency to accept new things easily, have a strong interest in life, and display the love for thrill-seeking adventures. In addition, people with high level of openness to experience consider happiness as an excited affect because they are flexible in their way of thinking and pursuing of idealistic goals, and have the ability to accommodate different or opposing opinions or perspectives (Aluja, Garcia, & Garcia, 2003). Researchers have also claimed that those with a high level of openness to experience and extroversion have sensitive emotions. Openness to experience perhaps contributes to a higher level of happiness as it gives the opportunity to be flexible and open, toward life and living (Matsumoto, Takeuchi, Nakajima, & Iida, 2000; Terracciano, Merritt, Zonderman, & Evans, 2003).

Conscientiousness reflects the character tendency to comply with societal norms, rules, and principles (Costa, McCrae, & Dye, 1991). It can be defined as the degree of efficiency, dutifulness, self-discipline and organizing capability. It shows the competency

and consistency in an individual. Conscientious has also been positively associated with positive affect, as those with a high level of conscientiousness are found to be prudent, having high self-control and high regard for maintaining order. In other words, it can be said that individuals with high level of conscientiousness have strong organizational skills and desire to achieve goals, remains highly determined, and are bound to have a strong commitment toward fulfilling duties. Researchers have shown that conscientiousness is associated with a strong tendency for emotional self-control and preventive regulatory focus (Cabanac, 2002; Tsuchiya & Adolphs, 2007; Manczak, Zapata-Gietl, & McAdams, 2014). It may be assumed that those with a high degree of conscientiousness will also display higher happiness as they possess many good skills such as determination, commitment, goal-orientation, organization skills and self-control.

Extraversion is one of the main personality characteristics indicative of the degree to which an individual wants to interact with others and attract others' attention. Extraverts are believed to derive pleasure and satisfaction from social interactions and activities through which they best express themselves. It represents the characteristics nature of outgoing, enthusiastic, energetic, assertiveness, sociability, talkativeness and a tendency to seek stimulation in the company of others (Norman, 1963; Goldberg, 1990; Costa, McCrae, & Dye, 1991). Individuals with high extraversion are often perceived as attention-seeking and domineering whereas those with low extraversion are perceived as reserved, quiet in nature, aloof or self-absorbed (Toegel & Barsoux, 2012). Research has shown that extraverted people tend to be more domineering in social settings as compared to introverted people who may act more shy and reserved (Friedman, 2016).

Extraverts are believed to be sociable, outgoing and outspoken as they like to attract more people and engage in social activities rather than individual tasks.

Agreeableness may be defined as the ability to maintain an easygoing and harmonious relationship with others. It reveals the forgiving nature, straightforwardness, altruistic, compliant and tender-mindedness, and represents an individual's strong disposition to conform to others (Costa, McCrae, & Dye, 1991; Hong, Paunonen, & Slade, 2008). Agreeableness has a strong resemblance to extroversion in terms of positive affect, but differs from extroversion as it is more closely related to altruistic behaviors, sympathetic, and being considerate of others. Research finding claimed that agreeable people are easy to get along, have a strong tendency to value and enjoy relationships with others and easily make friends with others (Graziano, Habashi, Sheese, & Tobin, 2007). In addition, it was found that agreeable people tend to be gentle, modest, compliant, and show a strong tendency to self-regulate emotions (Tobin, Graziano, Vanman, & Tassinary, 2000).

Neuroticism is defined as the degree of emotional stability/impulse control; the tendency of emotional stability, such as anxiety, irritability, depression, self-consciousness (shyness), impulsiveness (moody) and proneness to psychological stress (Friedman & Schustack, 2016). Individuals with a high level of neuroticism are sensitive, nervous, self-conscious, and impulsive as they are found to cope poorly with stressors due to emotional instability and poor impulse control. Also, they tend to report poor psychological well-being (Dwan & Ownsworth, 2017). In other word, neuroticism represents the psychological instability that leads to negative emotions such as anxiety, fear, sadness, shame, anger, and guilt, and is accordingly regarded to have negative

relationship with happiness (Costa, McCrae, & Dye, 1991; Fossum & Barrett, 2000; Tan, Der Foo, & Kwek, 2004; Neff, Rude, & Kirkpatrick, 2007). People with high emotional stability manifest as a stable and calm personality, but they can sometimes be seen as uninspiring and unconcerned. On the other hand, people with low emotional stability manifests a reactive and excitable personality often found in dynamic individuals but often remains unstable or insecure (Toegel & Barsoux, 2012).

#### **1.4.5. HAPPINESS AND LIFE SATISFACTION**

Satisfaction has been conceptualized as a state of gratification in which an individual's perceived needs are met. It can be defined as the optimal balance between a person and his/her social environment (Tessema, Ready, & Yu, 2012). Life satisfaction is a measure of well-being and can be assessed in terms of the quality of relationships we maintain, achievement of goals, and self-perceived ability to cope with daily life. It is perceived as the assessment of having a favorable attitude toward one's life rather than that of current feelings. There are certain factors which affect life-satisfaction, such as personality, self-esteem, outlook on life, age, life events and experiences, seasonal effects, values, culture, family, and career. Life satisfaction and happiness have close resemblance although they both are different psychological constructs, and as such, it can be tricky for a layperson to differentiate life satisfaction from happiness. Both of them are actually two separate concepts, which make up the components of well-being; happiness refers to an individual's emotions, feelings or moods whereas life satisfaction refers to the way an individual thinks about his/her life as a whole - including their relationships, status, income, health etc. (Wilson, 1967). In other words, it may be defined as an evaluation of life-as-a-whole, rather than the feelings and emotions that are experienced at the moment

(Chompoo, 2015). It can be further said that happiness has been conceptualized as the immediate, in-the-moment experience, whereas life satisfaction has been conceptualized as the happiness that exists when we think about our life-as-a-whole, as a complete picture. Based on his research on life-satisfaction, Veenhoven (1996) defined the quality of life as the association between oneself and living conditions, such as food, health, shelter, and so on. All the sources of life satisfaction cannot be completely understood, but one can say that life satisfaction is made up of a complex combination of individual behaviour, simple sensory experiences, higher cognition, and the environment chance factors. Perhaps, one can consider that happiness and life-satisfaction go hand in hand, as they are closely associated with each other.

#### **1.4.6. HAPPINESS AND SOCIAL RELATIONSHIP**

Human beings are also known as social animal because we are shaped by their experiences we share with others. The inherent tendency in human beings to interact with others can be understood from various perspectives. Research findings have confirmed that social relationships are one of the causes of happiness. Although love and marriage have the strongest effects on happiness, but friends, work relations and kinship are also equally important to achieve happiness (Argyle & Henderson, 1985). According to Maslow's hierarchy of needs (*The Need to belong*), individuals have a strong need to feel love and acceptance from social groups (family, peer groups). This can be explained in terms of a reward framework to appreciate the importance of relationships in life, which suggests that individuals engage in relations that are rewarding in various ways and it helps the individual to develop a sense of self. *Relational self* can be defined as an individual's self-concept about himself/herself and consists of feelings and beliefs that



one has regarding oneself based on interactions with others (Andersen & Chen, 2002). In other words, it can be said that our basic emotions and behaviors are shaped by the type of prior and existing relationships, which can influence our interactions with new individuals, particularly those individuals that remind us of significant others in our life (Hinkley & Andersen, 1996). The quality or type of social relationships we maintain, play an important role in reported level of happiness, because social relationships are considered to be a strong indicator of well-being. Social relationships such as having a healthy friend circle, supportive social group or community, would definitely go a long way in enhancing our positive attributes and improve happiness, as one can derive a sense of togetherness and support even during difficult times.

### **1.5. THE PRESENT STUDY**

Happiness is an important psychological construct. Several studies have been conducted on happiness to explore its significant association with many psychosocial variables, some of which have been included in the present study. Cross-examination of happiness across three age groups, namely late adolescents, young adults and elderly, would be carried out to examine how happiness varies across different age groups.

### **1.6. STATEMENT OF THE PROBLEM**

The title of the problem is stated as “*Are older people happier than younger people? A psychological inquiry*”. The present study will explore happiness across three age groups and further examine if happiness across age groups remain statistically significant even after controlling variables such as self-esteem, stress, personality, life satisfaction and positive relationship with others.

## **1.7. OVERVIEW**

In this chapter, a detailed analysis of happiness as an important psychological construct has been established. Significant psychological definitions of happiness, psychological theories and Indian concept of happiness has been highlighted, in addition to re-examining the relationships between happiness, and socio-demographic variables (age, gender, religion, rural/urban residence, marital status, family type, education, occupation, income) and psychological variables such as self-esteem, stress, personality dimensions of openness, conscientiousness, extraversion, agreeableness, neuroticism, and life satisfaction and social relationship, leading to the formulation of research objectives to be explored in the present study. In the next chapter, the review of previous empirical studies is presented.

# **CHAPTER II**

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## **REVIEW OF RELATED LITERATURE**

### *Chapter Outline*

- 2.1. Introduction
- 2.2. Review of Previous Studies on Happiness and Socio-Demographic Variables
- 2.3. Review of Previous Studies on Happiness and Self-Esteem
- 2.4. Review of Previous Studies on Happiness and Stress
- 2.5. Review of Previous Studies on Happiness and Personality
- 2.6. Review of Previous Studies on Happiness and Life-Satisfaction
- 2.7. Review of Previous Studies on Happiness and Social Relationship
- 2.8. Significance of the Present Study
- 2.9. Objectives
- 2.10. Hypotheses
- 2.11. Overview

## **CHAPTER II**

### **REVIEW OF RELATED LITERATURE**

#### **2.1. INTRODUCTION**

In the first chapter, the background of the present study was presented with an overview of the concepts on happiness and its association with many socio-demographic, psychosocial variables and the proposal of research objectives. This chapter offers an in-depth analysis of previous literature and includes information from research studies in published journals, books, and information from the internet, in order to identify the information gaps that will be relevant in the study. In this chapter, previous empirical studies on happiness in relation to socio-demographic variables of age, gender, religion, location of residence, marital status, family type, education qualification, occupation, income, and psycho-social variables of self-esteem, stress, personality dimensions of openness, conscientiousness, agreeableness, extroversion, neuroticism, life satisfaction, and social relationships are reviewed.

#### **2.2 REVIEW OF PREVIOUS STUDIES ON HAPPINESS AND SOCIO-DEMOGRAPHIC VARIABLES**

There has been a remarkable increase in studies on subjective well-being and happiness in recent years (Lyubomirsky & Lepper, 1999; Urzúa et al., 2009; Perez-Villalobos et al., 2011; Vera-Villarroel, Pavez, & Silva, 2012). Well-being has been conceptualized as one of the main goals in life, and has important implications for maintaining optimum physical and mental health (Frey & Stutzer, 2001; Lyubomirsky, King, & Diener, 2005; Barak, 2006; Gerstenbluth, Rossi, & Triunfo, 2008; Mustaca, Kamenetzky, & Vera-Villarroel, 2010; Demerouti & Sanz-Vergel, 2012). The terms well-being and happiness are included within Positive Psychology as an important area of research and studies.

Recent studies had shown that happiness is linked to increased life expectancy and better physical health (Jiménez, Martínez, Miró, & Sánchez, 2008; Koopmans, Geleijnse, Zitman, & Giltay, 2010), improved performance at work, successful relationships, and general health (Avey, Luthans, Smith, & Palmer, 2010; Watson, Clark, & Stasik, 2011; Boehm & Kubzansky, 2012) as well as satisfaction among family and interpersonal relationships, and harmony in work settings (Lyubomirsky et al., 2005; Retana-Franco & Sánchez-Aragón, 2010; Espinosa, Menotti, Bravo, & Procidano, 2011). However, according to Davidson, Mostofsky and Whang (2010), one need to gather more information and evidence regarding the mechanisms and variables related to measurement of happiness, because even with the growing literature on happiness, caution needs to be taken against the unanswered questions about the basic relations between happiness and, social and demographic variables. A recent meta-analysis (Dolan, Peasgood, & White, 2008) concluded that there is contradictory evidence, lack of certainty on the direction of causality and concern over the impact on the findings of potentially unobserved variables. The question of whether happiness with external outcomes is relative or absolute has intrigued many happiness researchers and generated much debate (Yang, Hsee, & Zheng, 2011). Besides, the concept of subjective well-being is a complex one, over which there are still many discrepancies and variations (Diener, Oishi, & Lucas, 2003; Ryan & Deci, 2001). SWB consists of seven important factors, such as family relationships, income, work, community and friends, health, freedom, and a philosophy of life (Chyi & Mao, 2011).

There is a large body of research which focuses on examining the factors associated with subjective well-being at the individual level. Some of these studies deals with the

directions (such as positive or negative) and the magnitude a particular variable (health, gender, marital status etc.) have on subjective well-being, and many researchers report the predictive (or explanatory) power of the combination of a set of variables. Fengler and Jensen (1981) assessed the effects of objective conditions and subjective perceptions of many factors on life satisfaction of urban and nonurban older people such as income, health, transportation, and housing, and they found out that subjective perceptions were better predictors of life satisfaction. Ruffing-Rahal and Anderson (1994) developed a regression model to predict subjective well-being, and reported that the combination of five significant variables (health concerns, perceived ability actively to practice religion, age, education and length of residence) accounted for 34 % of the variance in subjective well-being. La Barbera and Gurhan (1997) studied the effects of materialism and religiosity on subjective well-being wherein they found materialism to be positively related to subjective well-being in people with low religiosity but negatively related to subjective well-being in people with high religiosity. In addition, several studies have proposed and examined the possible causal relationships between associated factors and subjective well-being (Markides & Martin, 1979; Elwell & Maltbie-Crannell, 1981; Liang, 1982; McKenzie & Campbell, 1987; Donnenwerth & Petersen, 1992).

Researchers have made a great deal of effort on studying happiness or subjective well-being (Campbell, Converse, & Rogers, 1976; George & Bearon, 1980; Diener, 1984; Tran, 1992; Feist et al., 1995; Myers & Diener, 1995; Frey & Stutzer, 2002; Di Tella, MacCulloch, & Oswald, 2003; Robinson & Martin, 2008; Yang, 2008). Some studies have examined subjective well-being from an aggregate aspect; that is, by focusing not on individuals but on social groups, such as countries or specific populations. Most of

such researches centered on trends in subjective well-being in an entire society or in populations with certain characteristics (Rodgers, 1982; Myers & Diener, 1995), or has compared mean subjective well-being and other factors (such as gross domestic product) among countries (Diener, Diener, & Diener, 1995; Myers & Diener, 1995; Layard, 2005). Layard (2005) argued that although richer people tend to be happier than poor people, an increase in wealth in already rich countries have not increased happiness over the past several decades. Other individual-level factors, such as family, social relationships and health should not be overlooked in happiness studies, as they also play an important role in determining the overall happiness of an individual.

Research has shown that certain life circumstances such as health, environmental conditions, social relationships, goals and personal values can influence subjective well-being (Diener et al., 2003; Lyubomirsky et al., 2005). However, there are evidence sustaining that this contribution is not total, and can be relevant only until a certain level, after which its influence decreases. Such type of discrepancies can also be found in the studies of demographic variables and happiness as researchers have reported that economic and cultural variables can affect subjective well-being (Chang, Asakawa, & Sanna, 2001; Chang & Asakawa, 2003; Diener et al., 2003; Wolfers, 2003; Clark, Fritjters, & Shields, 2007; Diener, Ng, Harter, & Arora, 2010). Studies had also shown contradictory findings regarding the socio-economic level (Easterlin, 2010), indicating that socio-economic variables can affect happiness. Whereas Cornelis (2010) and Graham (2010) stated that there is no clear relationship between happiness and socio-economic level. However, there is growing body of evidence (Stutzer, 2004; Diener, Helliwell, & Kahneman, 2010; Diener et al., 2010) which supports the opposite view, that



is, money can buy at least some happiness. Additionally, there is little agreement regarding the basic demographic elements, such as age and sex, and its interaction with subjective well-being. Hervás (2009) concluded that age and sex had little or no influence on happiness while Lacey, Kierstead, and Morey (2011) concluded that age was one of the few variables which can affect happiness. Easterlin (2001) emphasized the current status of research on happiness by stating that happiness varies over the course of the lifetime. On the other hand, studies with respect to marital status (Hervás, 2009) and educational level (Gerstenbluth et al., 2008) indicate that happiness increases with support networks, job, income, and higher educational levels. Such kind of disparity of outcomes regarding happiness and socio-demographic variables had been studied by many researchers (Easterlin, 2001; Oswald, 2002; Wolfers, 2003; Stutzer, 2004; Clark et al., 2007; Bilbao et al., 2007; Silva-Colmenraes, 2008; Inglehart et al., 2008; Lyubomirsky, 2008; Graham, 2010; Schnettler et al., 2012), however, the conclusion seems to be incomplete. According to DeNeve and Cooper (1998), socio-demographic characteristics such as age, sex, race, marital status, education, and income have demonstrated weak correlation with SWB, in the range of .03 to .19. All such socio-demographic factors can explain only 8% to 20% of the variance in SWB (Andrews & Withey, 1976; Campbell et al., 1976).

Socio-demographic variables are considered as one of the most commonly explored correlates of subjective well-being and happiness. And age is an important factor in examining the level of reported happiness. Age and happiness have been much-researched area in psychological realm. Existing literature indicates that there are three trends of the relationship between happiness and age. First, the relationship between

happiness and age is in the form of the U curve. Blanchflower and Oswald (2008) claimed that happiness is highest in late adolescents to early 20's, reaches the lowest in midlife and the pattern is universal. In another research study, Oshio and Kobayashi (2010), using population-based survey data of Japan, had consistently found that younger individuals tended to feel happier than their older peers. Gredtham and Johannesson (2001) found a U-shape relationship between age and happiness, implying that those aged 18-34 years and greater than 60 years reported greater happier than those aged 35-64 years. This U-shape relationship was further evidenced by Frey and Stutzer (2002), Peiro (2006) and, Frijters and Beatton (2012). The U-curve proponents believed that happiness is lowest during our midlife, and remains relatively high during early years and old age. Secondly, there have been reports of the inverted-U curve relationship between age and happiness. Howell et al. (2006) found that age and happiness were correlated in inverted U-shape, implying that individuals' happiness levels would reach its maximum at the age of 50, and then decrease afterward. This inverted U-shape relationship was also reported by Easterlin (2006) stating that happiness across age was found to be mildly inverted U-shaped; with a lower level at age 18 and a high point around age 50, and then declining thereafter. Similarly, Mroczek and Kolarz (1998) found that an inverted U-shaped relation between age and life satisfaction with peak life satisfaction at around 65 years. Such type of mild inverted-U curve trend of the relationship between happiness and age depicts that happiness slightly increases during the mid-years of life and then declines afterward till our very old old-age. This can be explained as the level of happiness remains relatively low during the early years and old age but happiness during midlife slightly increase, probably after obtaining a secure job, having settled in life with a

partner, or having stable family and work relationships, becoming a parent and the fulfilling experience of having a balanced life.

Apart from U curve and inverted-U curve relationship between age and happiness, there exist a linear trend of relationship between age and happiness as research found that age is positively correlated with increased happiness because, with age, individuals developed the ability to gain better insight and build self-esteem from experiences in their early years which in turn will increase the quality of life and overall happiness (Gove, Ortega, & Style, 1989; Yang, 2008). Furthermore, Argyle (2003) claimed that older adults developed the ability to set more realistic goals/expectations and as a result cope better with life negative events in comparison to younger adults. It can be said that with the advent of retirement, older adults experience less stress from work although there are other factors associated with aging, such as, income, marital status, number of children, and religious attendance - which strongly affect an individual's sense of well-being (Ellison, 1991; Waite, 1995; Easterlin, 2003; Kohler, Behrman, & Skytthe, 2005). Thomas et al. (2016) claimed that there is a linear improvement in various attributes of mental health. Likewise, Cartensen et al. (1999) reported that as adult age, they are able to better regulate their emotions and thus experience increased happiness in later life. According to Carstensen's (1995) socio-emotional selectivity theory, older people developed the ability to sustain high SWB through their improved emotional regulation, by selectively engaging in close relationships. In a meta-analysis of empirical studies on happiness, Myers and Diener (1995) reported that there is an even distribution of well-being over age and that happiness does not depend significantly on external

circumstances. Deaton (2008) claimed that the relationship between age and life satisfaction differ across countries and culture.

Interestingly, there are several other research findings which claim that happiness and age have no possible association and that happiness is entirely dependent upon oneself. According to Diener et al. (1993), age is not associated with happiness because individuals learn to adjust/adapt to their aims and goals as they grew older. According to Felton (1987), and La Barbera and Gurhan (1997), studies during the 1950s and 1960s generally reported a negative relationship between age and subjective well-being, while researchers during the early 1970's found no relationship between age and subjective well-being, although recent studies have found a positive relationship between age and subjective well-being (Shmotkin,1990). George (1996) suggested that the relationship between age and subjective well-being may not be linear, which has recently been supported by empirical evidence (Yang, 2008; Fischer, 2009).

A small, positive correlation between age and subjective well-being was reported by Stock, Okun, Haring, and Witter (1983). Diener and Suh (1997) reported that older people showed higher life satisfaction than younger people, whereas there was stable negative affect along with the decline of positive affect across age cohorts. In another similar study conducted in the U.S., it was found that negative affect remains stable or decrease with increasing age, whereas positive affect remains stable or even increases (Mroczek & Kolarz, 1998; Carstensen, Pasupathi, Mayr, & Nesselroade, 2000; Charles, Reynolds, & Gatz, 2001). Although the findings depend on the study design (such as cross-sectional vs. longitudinal) and adjustments of background variables (Kunzmann, Little, & Smith, 2000; Shmotkin, 1990), research data suggested that aging does not

necessarily involve a decline in SWB. It is a very common observation for lay people to expect SWB to decline in old age because this life period involves irreparable losses (Schulz, 1985). Thus, researchers attempted to explain the “paradox of well-being” in old age (Mroczek, 2001). Researchers such as Heidrich and Ryff (1996) have reviewed the mechanisms for maintaining well-being in the face of aging-related stress, such as using downward social comparisons, reducing self-discrepancies, and increasing social integration which will help in maintaining happiness over the lifespan.

Gender differences in happiness studies showed that gender is a significant variable, regarding happiness and well-being (Csikszentmihalyi & Hunter, 2003; Alesina et al., 2004; Inglehart et al., 2008; Yang, 2008; Swami et al., 2009; Barra, 2010). However, there are reports from other researchers, such as Lyubomirsky and Lepper (1999) who found no gender differences in happiness levels between man and woman. Research findings have shown mixed result between gender and happiness, as gender has been found to be not related to subjective well-being in some of the recent researches (Diener, Suh, & Oishi, 1997; Diener & Biswas-Diener, 2000; Pavot & Diener, 2004). However, other researchers have shown that gender is related to subjective well-being but in interaction with age (Shmotkin, 1990; Brajša-Žganec & Kaliterna-Lipovčan, 2006). Gender differences in SWB are usually small as research findings indicate the differential impact of personal variables on the aspects of SWB. Researchers (Haring, Stock, & Okun, 1984) have shown that gender can be accounted for only 1% of the variance of subjective well-being. On average, women are found to be equally happy as men and report the experience of more negative emotions than men (Piccinelli & Wilkinson, 2000). The reason behind such gender differences in happiness may be due to

the fact that women are likely to experience and express emotions more intensely and more frequently than men, which involves both positive and negative emotions (Rijavec, Miljković, & Brdar, 2008). On the other hand, personal predispositions are one of the most important factors that have a long-term effect on well-being. Personality traits can be accounted for one-third of variance of subjective well-being (Chan & Joseph, 2000).

Happiness and religion have been much-researched area of study. Several researchers have made attempts to elaborately study how religion influence/correlate with happiness. A recent review conducted by Tay et al. (2014) showed that although there were many researchers and atheists, who were trying to demonstrate religion as irrelevant, but the majority of the human regarded religion as an important part of their daily lives to obtain peace and happiness. Vishkin et al. (2014) proposed and explained that religion is a major tool for emotion regulation and happiness by analyzing the concepts of joy, hatred, gratitude, awe, and guilt from a religious perspective. Religion sets the emotion goals and emotions are regulated using a combination of intrinsic and extrinsic processes of religion. Lelkes (2006) brought in the concept of economic freedom with regard to religiousness and happiness in a study which revealed that religion had a positive effect on happiness, whereas monetary status and increase in economic freedom were insignificant for life satisfaction. Opfinger and Gundlach (2011) considered the other factors of happiness in addition to religiosity by comparing their dependence. Results showed that high religiosity displayed a higher degree of happiness when other factors of happiness were kept constant and religiosity could be replaced by other factors such as an increase in income, at a certain constant level of happiness. Robbins and Francis (1996) showed a significant positive relationship between religion and happiness. However,

Lewis et al. (1996) found no relationship between religiosity and life satisfaction. A year later, a contradiction to this result was put forth by Francis and Lester (1997) stating that the happiest individuals were found to be more religious, extravert and less neurotic. Lewis et al. (1997) countered the results again by finding no evidence of a relationship between religiosity and happiness. Abdel-Khalek and Naceur (2007) confirmed that religiosity had a positive effect on happiness. Most findings on religion and happiness tend to suggest that religion/spirituality is of some benefit in terms of personal well-being, particularly in areas such as: expressing emotions, encouraging virtues (e.g., gratitude, care, charitable actions), coping with adversity and social connections (McCullough et al., 2002; Kim-Prieto & Diener, 2009; Fischer et al., 2010; Jung, 2014).

Another notable study was done by Abdel-Khalek and Lester (2007), who compared the responses of 460 Muslim and 274 Christian college students and they found that although there were differences in several factors among the two samples, religiosity had a significant positive effect on physical health, mental health, and optimism for both Muslim and Christian. For better comparison, a similar study was conducted by Abdel-Khalek (2010) with an equal number of Muslim and Christian undergraduate students, which once again reinforced the notion that religiosity leads to better quality of life and subjective well-being. The study also highlighted the dominant score of the Muslim samples as compared to that of Christian samples, claiming that Muslims were happier and more satisfied in life compared to Christians. Another survey by Abdel-Khalek (2007) revealed that among both the genders, religiosity had a compelling and positive relationship with happiness, mental and physical health, whereas religiosity and anxiety/depression was negatively related. In another study by Hafeez and Rafique

(2013), it was found that psychological well-being was positively predicted by religiosity. A similar study was conducted to demonstrate that religiosity had a positive effect on life satisfaction (Gull & Dawood 2013). Ngamaba and Soni (2017), using World Value Survey (from 1981 to 2014), found that individual religiosity and country level of development play a significant role in shaping individual subjective well-being (SWB). They found that Protestants, Buddhists, and Roman Catholic were happier and satisfied with their lives in comparison to other religious groups. A study (Maheshwari & Singh, 2009) conducted on the followers of Hinduism on 154 pilgrims from the Ardh-Kumbh Mela pilgrimage held in 2007 at Allahabad in India showed a clear indication that religiousness leads to higher happiness and life satisfaction. Another study was conducted by surveying 171 older adults which demonstrated a significant and positive correlation between spirituality and well-being (Gupta & Chadha, 2014).

In one of the studies conducted on the location of residence and happiness by Pew Research Center (2006), it was found that respondents reported being slightly happier if they lived in suburbs or rural areas relative to cities. On the contrary, recent data collected by Gallup indicates that well-being is higher in large metropolitan areas relative to small towns and rural areas (Gallup Organization, 2010). According to Nordbakke and Schwanen (2013), the SWB of individuals and members of a community could be shaped by time and place and as a result, the geographical context and the spatial differences play an important role in explaining SWB (Wang & Wang, 2016). The context of rural and urban residence can affect the happiness of residents due to various reasons, such as labor market opportunities, access to public services, education opportunities, social support, and environmental features. Economic growth and development in recent years



have brought the rapid growth of large cities, but it also raises concerns related to increased human interaction, such as isolation, feelings of loneliness, alienation and social disorganization (Wirth, 1938). One may claim that rural areas suffer some material disadvantages such as lower income, fewer occupational opportunities, and limited access to education, lack of health and transport services, although rural lifestyle enjoy the supportive communities and healthy social environment, positive environmental features such as green spaces, absence of pollution and environmental hazards, and perceived security in terms of protection from economic deprivation, unemployment and safety from crime that could affect the perceptions of SWB (Schucksmith et al., 2009; Gilbert et al., 2016). Based on the data from European Quality of Life Survey, Schucksmith et al. (2009) found that the urban-rural disparity in quality of life is minimal in richer countries and greater in poorer countries at the expense of rural areas. However, they also found that the SWB (life satisfaction and happiness) was not significantly different between rural and urban areas, and did not compensate for material disadvantages. Some researchers (Brereton et al., 2008; Berry & Okulicz-Kozaryn, 2011; Morrison, 2011) focused on the issue with indicators such as population density, degree of urbanization, city size, accessibility to transport and other services and found that more urbanized and denser locations have lower happiness. On the rural-urban continuum, several studies (Cummings et al., 2003; Schucksmith et al., 2009; Davern & Chen, 2010; Knight & Gunatilaka, 2010) showed that rural areas have higher levels of SWB or happiness, while other studies (Murray et al., 2004; Millward & Spinney, 2013) provided evidence in favor of urban places. Based on data from the U.S. General Social Survey, Berry and Okulicz-Kozaryn (2011) provided evidence that rural areas or small towns are happier than large

cities. A recent study by Gilbert et al. (2016) reported higher life satisfaction in remote rural areas and no specific change in mental well-being was found across rural-urban space in Scotland. Millward and Spinney (2013) found that life satisfaction varies significantly according to urban-rural zones, with inner cities being highest and outer commuter belts being lowest in Canada. Han (2015) found that income, structural attributions of inequality and attitudes toward governance were significant in both urban and rural samples in China, whereas materialistic pursuit or social trust have different effects between rural and urban samples.

According to research findings, marriage increases happiness. But it was observed that couples without children tend to have higher levels of happiness as the presence of children seems to be rather costly, in terms of expenses, responsibilities, and stress (Myers, 2000; Frey & Stutzer, 2002; Layard, 2005; Conceição & Bandura, 2008). Research on happiness and marital status showed that marital status was significantly associated with happiness (Tokuda & Inoguchi, 2008), which was further observed by other researchers (Morawetz et al., 1977; Oswald, 1997; Gredtham & Johannesson, 2001; Clark & Oswald, 2002; Subramanian et al., 2005) that married individuals tended to feel happier than the single, divorced and widowed. Research evidence showed that family life affects happiness greatly, confirming that family life is still widely seen as central to life satisfaction and happiness (Argyle, 1987; Chilman, 1982; Rodgers & Bachman, 1988).

In terms of education, higher educated individuals were found to have happier feelings than the lower educated individuals (Oswald, 1997; Gredtham & Johannesson, 2001; Subramanian et al., 2005; Tokuda & Inoguchi, 2008). In contrast, Howell et al. (2006)

found that education was negatively associated with well-being. Campbell et al. (1976) and Diener et al. (1993) observed that there was no significant relationship between education and well-being. Other researchers claimed that the relationship between education and happiness is generally positive because when the educational level increases the happiness of the people also increases (Frey & Stutzer, 2002; Lyubomirsky & Diener, 2005; Cheung & Chan, 2011). In a study by Cunado and Gracia (2012), using European Social Survey data of 2563 individuals from Spain, they found both direct and indirect effects of education on happiness. There was an indirect effect of education on happiness through income and labour status. People with higher education level have higher income and labour status and a higher probability of being employed, and thus report higher levels of happiness. After controlling income, labour status, and other socio-economic variables, education has a positive, direct impact on happiness.

There has been mixed speculation on the association between happiness and employment/occupation. Some studies (Clark & Oswald, 1994; Gerlach & Stephan, 1996; Winkelmann & Winkelmann, 1998; Gredtham & Johannesson, 2001) have shown that being unemployed was highly correlated with unhappy feelings. However, another study by Peiro (2006) documented that employment status did not possess any significant impacts on happiness. On the other hand, unemployment and inflation, unlike income, have a negative impact on the degree of happiness because it not only reduces income but also creates the feelings of low self-esteem and self-respect (Stutzer & Frey, 2002, 2010; Layart, 2005).

Happiness has been studied not only from the psychology perspective, but also by other perspectives, such as economics, and both have tried to find conclusive evidence

regarding happiness and socio-economic factors (Easterlin, 2001; Frey & Stutzer, 2001; Di Tella, MacCulloch, & Oswald, 2003; Blanchflower & Oswald, 2004). Most subjective well-being studies use income as a substitute for money or wealth (George, 1992; Yang, 2008). George (1992) found a strong, positive correlation between income and SWB. Elwell and Maltbie-Crannell (1981) also found there was a significant direct effect between income and SWB in older men but the same was not present in older women. Veenhoven (1991) suggested that income is helpful to meet certain needs and, therefore, related to SWB, but Myers and Diener (1995) suggested that although the absence of income could be a misery the relationship between income and SWB by no means should be a positive linear one. Researchers have also argued the importance of social comparison in examining the relationship between income and happiness (Liang & Fairchild, 1979; George, 1992; Layard, 2005; Ferreri-Carbonell, 2005). More specifically, researchers indicate that an individual's perception of income is dependent upon his/her own income in relation to the past as well as income of other people. According to Ferreri-Carbonell (2005), subjective well-being is influenced by the perception of income, in addition to actual income. In an attempt to answer the important, yet the troubling question of whether money brings happiness, research findings have shown that beyond the provision of necessities, money/income has little effect on SWB (Myers, 2000; Diener & Biswas-Diener, 2002). The finding that life conditions matter little in terms of SWB has surprised many researchers. This can be interpreted as whether the amount of ceaseless effort that human dedicates to improving their standard of living will only lead to the discovery that it barely affects their happiness. People have a natural desire to be richer and generally associate wealth with higher SWB (Csikszentmihalyi,

1999; Myers, 2000). Such expectations are supported by research findings that the association between socio-economic status and SWB, although small, is consistent (Haring, Stock, & Okun, 1984; Pinqart & Sorensen, 2000). As there has also been report of countries with higher GDP/per capita income showing higher levels of SWB than the countries with lower GDP/per capita income (Diener & Oishi, 2000). Such claims are coherent with Veenhoven's (1991) conclusion that people are happy only to the extent to which they enjoy the "livable" conditions that suit their needs. The little effect of life conditions/circumstances on subjective well-being can be explained by *adaptation* because, in the long run, people learn to adapt to the circumstances of their life, whether it may be favorable or unfavorable (Frederick & Loewenstein, 1999). Another explanation could be the adjustment of *comparison standards*. Because higher SWB relates to smaller discrepancies between actual conditions and the desirable standards that one has, and as a result, people learn to raise their aspirations in advantageous/favorable conditions and lower them in adversity/ unfavorable conditions (Michalos, 1985).

Existing literature suggests that at least nine major variables are considered to be important correlates of subjective well-being such as income, socio-economic status attributes (education and social status), health, age, gender, race, work/employment, marital status, and social interaction. The main factors of human happiness include gender, income, marital status, education level, job satisfaction, and health. (Campbell, Converse & Rogers, 1976; George & Bearon, 1980; Diener, 1984; McKenzie & Campbell, 1987; Shmotkin, 1990; Mookherjee, 1992; Stevens, 1993; Burton et al., 1993; Myers & Diener, 1995; Feist et al., 1995; Beatty & Tuch, 1997).

Previous research suggests that a 'happy person' is young, healthy, well-educated, well-paid, optimistic and extroverted. The same research also found the happiest people tend to be religious, married, have high self-esteem, adequate job morale, and modest aspirations. Gender and levels of intelligence don't necessarily affect happiness (Wilson, 1967). According to Gredtham and Johannesson (1997), socio-economic variables such as unemployment, health status, gender, being single, urbanization and education are conceptualized as important as income for determining happiness. Happiness has a positive relationship with education and income but negative relationship with being single and unemployed. Male gender has a significant direct negative effect on happiness. They further claimed that the effect of being single on happiness is greater than the difference in happiness between the highest and the lowest income quartile and between men and women, but not significantly different from the difference in happiness between the highest and the lowest education category. Unemployment has a direct significant negative effect on happiness but has no significant effect on health status. They found that the probability of being happy most of the time is 0.49 for individuals who are unemployed and 0.58 for individuals who are not unemployed. The effect of unemployment on happiness is not significantly different from the effect of gender, being single or income. The estimated effect of urbanization shows that living in big cities, as compared to living in rural areas, has a significant negative direct effect on happiness and health status. The predicted probability of being happy most of the time is 0.55 in big cities whereas in small cities and rural areas is 0.58. The effect of living in big cities on happiness is significantly lower than the effect of being single but is not significantly different from the effect of gender or unemployment.

A study by Kaliterna-Lipovčan and Prizmić-Larsen (2016) explored the determinants (demographic, personal, behavioural and social) by which happy and unhappy people differ. The distribution of overall happiness score distributed the sample into the happy group representing the upper end of the happiness distribution, while the unhappy group represented the lower end of the distribution. On exploring the differences between the two groups, results showed that happy individuals were younger, had higher income, and higher education than the unhappy individuals. It was also found that happy people were found to be more satisfied with personal and national well-being domains, e.g., better health status, after controlling for age, income, and education level. The happy people group reported higher trust in people and institutions, and more engagement in leisure activities and community life than unhappy ones.

Vera-Villarroel et al. (2012) examined the relationship between happiness and socio-demographic variables (age, sex, socio-economic status, educational level) on Latin American sample of 520 (Mean age =21.26 years). Results showed that the variables which best characterize the happiness are age and socio-economic status. Results also indicate that higher age within the sample predicts lower levels of happiness and higher socio-economic level predicts higher levels of happiness. In addition, no gender differences in happiness were observed.

In a study, Cheah and Tang (2013) explored the socio-demographic determinants of happiness among 398 adults in Malaysia were explored. Results revealed that some variables which were found to be statistically significant in determining happiness are ethnicity, marital status, and education, whereas age, gender, income, employment status, and presence of chronic diseases are not statistically significant in determining happiness.

Another study was conducted by Agrawal et al. (2011) in India on 1099 samples (Mean age=37 years) on correlates of subjective well-being. It was found that higher age, marriage, education, income, and work improve the overall life satisfaction and decrease negative affect. Religion was found to be significantly associated with negative affect. Education and income were important predictors of positive affect, while negative affect was predicted by age, income, work status, and religion. It was also found that life satisfaction was predicted by income, age, and education. The important correlates SWB for men and women were somewhat different. Overall, socio-demographic variables have minimal effect on SWB in urban India.

### **2.3. REVIEW OF PREVIOUS STUDIES ON HAPPINESS AND SELF-ESTEEM**

Self-esteem has been defined as a global feeling of self-worth or adequacy as a person, or generalized feelings of self-acceptance, goodness, and self-respect (Rosenberg, 1965; Coopersmith, 1967; Wylie, 1979; Crocker & Major, 1989). Such type of overall, unbiased judgment of worthiness/competence can be characterized as the evaluative component of the self and is distinct and separate from the collective self-esteem (Crocker & Major, 1989; Campbell, 1990). According to Epstein (1973), individuals have a basic need to obtain and maintain self-esteem by using numerous strategies (Taylor & Brown, 1988; Markus & Kitayama, 1991; Diener & Diener, 1995; Dunning et al., 1995). Self-esteem forms early in the course of development and remain fairly constant over time, and is relatively immune to change (Campbell, 1990). Existing literature on self-esteem suggests that self-esteem can be conceptualized either as a personality trait or psychological (global) state. In other words, an individual's level of trait self-esteem is stable over time and across situations, whereas the momentary



experiences of state (global) self-esteem can fluctuate on trait level (Crocker, Brook, Niiya, & Villacorta, 2006). Previous studies have examined different types of self-esteem (using the Rosenberg Self-esteem Scale) and its effect on overall happiness levels. Self-esteem can be conceptualized as secure and fragile (Kernis, 2003). Secure self-esteem means being satisfied at par with others and the absence of the need to be superior to others (Rosenberg, 1965). Secure self-esteem implies the everyday experiences of positive and negative outcomes in ways that do not implicate the global feelings of worth/value, without changing the overall happiness levels. It further suggests that fragile self-esteem includes individuals who are caught up in how they feel about themselves and that they will go to great lengths to bolster, maintain and enhance these self-feelings. It may be also important to note that having very high self-esteem is not always good, as maintaining and managing an optimal level of self-esteem might prove beneficial in the long run. Baumeister, Heatherton, and Tice (1993) showed that having very high self-esteem or egos leads to maladaptive self-regulating processes (such as excessive risks or overestimation) that result in unnecessary deterioration in performance. Research suggests that having an average self-esteem level is better for the physical and mental capacity of the person. Some studies have focused on examining whether individuals' level of trait self-esteem remains high or low (Baumeister et al., 2003; Crocker & Park, 2004) as high self-esteem levels are linked with increased happiness and decreased emotional distress (Brown, Dutton, & Cook, 2001). This can be interpreted as having high self-esteem would significantly increase one's level of reported happiness as those with a high level of self-esteem will be able to effectively maintain their self-worth, self-image, and self-respect which will further help in maintaining the overall level of

happiness. Individuals who have high self-esteem are more likely to be self-confident in making new friends, maintaining work/family responsibilities and coping with problems. Thus, individuals with high self-esteem often report that they are happy and satisfied with their lives (Brown & Marshall, 2001; Katz, 1998). On the contrary, individuals with low self-esteem are prone to think negatively about themselves, have a negative self-image and low self-worth which can cause painful psychological distress, such as feelings of sadness, extreme loneliness, and excessive anxiety. People with low self-esteem are found to be less sociable and frequently avoid taking chances or trying new things (Baumeister et al., 2003; Cheng & Furnham, 2003; Crocker & Park, 2004; Joshanloo & Afshari, 2011). Empirical evidence suggests a significant positive correlation between self-esteem and happiness (Furr, 2005). This is further reflected in researches (Shackelford, 2001; Lyubomirsky & Lepper, 1999; Baumeister et al., 2003; Lyubomirsky et al., 2006) with findings indicating that self-esteem and happiness were highly correlated. Such a positive association between happiness and self-esteem may be interpreted as having adequate self-esteem would prove beneficial in enhancing one's level of happiness because self-esteem is responsible for having feelings of self-worth and maintaining a healthy self-image. If one is able to view him/her as good, significant, worthy and competent in his/her own eyes, then one need not be dependent or seek other's approval to remain a happy individual. Research supports the claim of strong correlation between happiness and self-esteem as results revealed moderate to strong positive, significant correlations value of 0.3 and 0.5, between happiness and self-esteem (Diener et al., 1995; DeNeve & Cooper, 1998; Baumeister et al., 2003; Furr, 2005). Although these correlations are not entirely conclusive and do not indicate a causal

relationship between them, but this could be explained as those having higher self-esteem report greater feelings of happiness and positive affect, or it could be that experiencing greater feelings of happiness and positive affect may, in fact, positively increase an individual's self-esteem. Existing literature showed a relatively high degree of relations among self-esteem and life satisfaction, as both of these constructs have similar patterns of relations with respect to health, job success and interpersonal relationships, which together holds a general level of happiness and individual functioning (Schimmack & Diener, 2003). Diener and Diener (1995) found that life satisfaction was consistent, positively associated with self-esteem, indicating that the positive role of personal self-esteem promotes subjective well-being. Similarly, moderate positive correlations were found between life satisfaction and self-esteem among children and adolescents (Huebner, 1991; Neto, 1993; Dew & Huebner, 1994).

Recent research by Du, King, and Chi (2017) examined self-esteem and subjective well-being among 847 Chinese college students. Results showed that when controlling for personal self-esteem, relational self-esteem was associated with greater life satisfaction, positive affect, meaning in life, happiness, and subjective vitality. However, the same was not found for collective self-esteem. They defined self-esteem at three levels: personal self-esteem is derived from one's unique traits that differentiate a person from others, relational self-esteem is derived from interpersonal attachments and relationships with significant others (e.g., family, friends), and collective self-esteem is derived from membership with larger social groups (e.g., ethnic group). Their findings support that relational self-esteem play a significant role in determining happiness level.

## **2.4. REVIEW OF PREVIOUS STUDIES ON HAPPINESS AND STRESS**

Researches on the relationship between happiness and stress have emphasized that stress has negative effects on happiness (Zika & Chamberlain, 1987; Chatters, 1988; Suh et al., 1996) whereas others have claimed that stress has no effect on happiness (Feist et al., 1995). Psychological distress has a negative impact on health and well-being outcomes such as the increased occurrence of psycho-somatic disorders, and various health issues (Tessler & Mechanic, 1978; Jackson et al., 1982; Kessler, Price, & Wortman, 1985). Main stressors in life, i.e., financial difficulties, family problems, work stress, social pressure, and major health problems are supposed to have a negative impact on health, life satisfaction, and happiness. Stress can be examined by measuring its physiological manifestations, the occurrence of major life events, the frequency of daily hassles, and its cognitive appraisal. Similar to the assessment of subjective well-being, the latter approach proposes that a person's cognitive appraisal of stress is the most important factor in evaluating stressful events (Cohen et al., 1983). From this perspective, a person interprets environmental events based on his or her own values, available resources and eventually reacts psychologically, behaviorally, and biologically. Events are assigned stressful only when the demands of the event outweigh the person's available resources (Cohen et al., 1983). Such type of situation creates an imbalance on our psychological health which ultimately negatively impacts our well-being/happiness.

It may be interesting to note that happiness and stress can be studied in both ways as the negative effect of stress on happiness and secondly, the role of positive emotion (happiness) in buffering against stressors. In terms of the buffering hypothesis, positive emotions have been found to play a key role in undoing the cardiovascular effects of

negative emotions (Fredrickson & Levenson, 1998; Fredrickson et al., 2000), which may contribute to psychological resilience (Tugade & Fredrickson, 2004). Although research (Van der Werff & Sanderman, 1989) documented no evidence of the buffering effects of happiness on stress when self-report measures are used rather than physiological measures of stress. However, another research (Lightsey, 1994) found evidence of positive automatic thoughts about self-worth acting as a buffer against self-reported stress. Therefore, it may be said that although the subjective conceptions of global happiness may not function as a buffer against stress specific positive thoughts does. Such discrepancies in the literature may also occur if stress has different relationship with low arousal (e.g., happiness) and high arousal (e.g., inspiration) positive affect (Kunzmann & Baltes, 2003; Kunzmann et al., 2005). Research by Watson and Tellegen (1985) provided evidence that happiness (positive affect) and stress (negative affect) are two independent dimensions, suggesting that it is possible to feel both emotions simultaneously. However, some research conducted on the relationship between positive and negative affect does not support the proposed independence of these two dimensions (Feldman, Barrett, & Russell, 1998; Russell & Carroll, 1999), and as such the definitions of these two dimensions varies across the literature.

## **2.5. REVIEW OF PREVIOUS STUDIES ON HAPPINESS AND PERSONALITY**

Prior researches have provided evidence on the importance of personality traits in determining experienced levels of happiness (Diener & Diener, 1995; Lykken & Tellegen, 1996; DeNeve & Cooper, 1998; Francis, 1999; Lucas & Fujita, 2000; Lynn & Steel, 2006). Personality traits can be described as an individual's propensities toward a stable pattern of thoughts, feelings, and actions that are consistent across situations and

across lifespan (McCrae, 2002). Studies of happiness and personality have proved the significance of personality traits on happiness (Eysenck, 1990), explaining how happiness levels are influenced by individual personality pattern. Studies on the heritability of happiness by examining twins revealed that about 80% of the variance in long-term happiness could be attributed to inborn temperament (Lykken & Tellegen, 1996). However, other researchers argued that these findings appear too extreme, although they maintain that even when heritability is known to be stable there would still be a possibility for change (Lucas & Diener, 2000).

Costa and McCrae (1980) pointed out that individual difference in personality traits occur before individual differences in happiness and life satisfaction. Among the major personality dimensions, neuroticism is important as it is known to produce unhappiness. Headey, Holmstrom, and Wearing (1985) found that neuroticism is a part of a 'chain of ill-being' where neuroticism led to unfavorable life events which in turn leads to unhappiness. Another personality dimension which is correlated with happiness is internal control; the belief system that events are mainly under one's own control rather than that of others or chance. However, this may be because people who have experienced a lot of negative life events, who tend to be unhappy, believe that they are unable to control them. According to Argyle (1987), the main personality dimension which correlates with happiness is extraversion as researchers have found correlations of the order of 0.4 or 0.5. Extraverts often seem to engage in a number of very enjoyable social activities and are more likely to exchange smiles and other positive non-verbal signals with others, which induce positive moods (Argyle & Lu, 1990). Extraverts also possess certain social skills, such as assertiveness, which in turn produces happiness,

probably because it leads to better control over social relationships, cooperativeness and leadership (Argyle & Lu, 1990). Headey, Holmstrom and Wearing (1985) found that extraversion produces happiness via enjoyable social events, at work and with friends. Researchers concluded that personality traits strongly predict happiness over a period of ten years. Traits such as agreeableness and conscientiousness are known to stimulate positive experience during social interactions, as well as in situations of achievement resulting in increased subjective well-being (McCrae & Costa, 1991). According to DeNeve and Cooper (1998), extraversion and neuroticism have the strongest and the most consistent associations with subjective well-being within the Big Five model of personality (Openness, Conscientiousness, Extroversion, Agreeableness, and Neuroticism). Neuroticism is the most important predictor of negative affect and life satisfaction, whereas extraversion is associated with positive affect and life satisfaction. According to Diener et al. (1999), personality traits account for 40% to 50% of the proportion of the variability in well-being, thus, traits and dispositions are critical in determining the level of happiness. Ryan and Deci (2001) endorsed that agreeableness and conscientiousness are more affected by the influences from the environment, including cultural differences present in the relationships between these traits and subjective well-being. On the contrary, they maintained that extraversion and neuroticism are more influenced by genetic factors.

According to Aluja, Garcia, and Garcia (2003), individuals with a high level of openness to experience consider happiness as an excited affect because they are flexible in their way of thinking, pursuing of idealistic goals, ability to accommodate different or opposing opinions or perspectives and remains highly imaginative. Researchers have

claimed that those with high level of openness to experience have sensitive emotions (Matsumoto, Takeuchi, Nakajima, & Iida, 2000; Terracciano, Merritt, Zonderman, & Evans, 2003). On the other hand, another dimension of personality known as conscientiousness was found to be positively associated with emotional self-control and preventive regulatory focus (Cabanac, 2002; Tsuchiya & Adolphs, 2007; Manczak, Zapata-Gietl, & McAdams, 2014). Research finding showed that agreeable people are easy to get along, have a strong tendency to value and enjoy relationships with others and easily make friends with others, in addition to being gentle, modest and a strong tendency to self-regulate emotions (Tobin, Graziano, Vanman, & Tassinari, 2000; Graziano, Habashi, Sheese, & Tobin, 2007).

According to Myers and Diener (1995), there are four particular personality traits to characterize happy people. These are self-esteem (Kozma & Stones, 1978; Fordyce, 1988; Diener & Diener, 1995), optimism (Campbell, 1981; Carver & Gaines, 1987), extraversion (Costa & McCrae, 1980; Costa et al., 1981; Emmons & Diener, 1985; Headey & Wearing, 1989; Pavot et al., 1990; Brebner et al., 1995), and a sense of personal mastery or control (Ryff, 1989; Csikszentmihalyi & Wong, 1991; Grob et al., 1999). This leads to the conclusion that happy people have sociable, outgoing personalities, as well as positive feelings about themselves and the future, and personal control. They are also more likely to be active and energetic and less likely to be neurotic (DeNeve & Cooper, 1998). Such type of positive attitudes can be self-fulfilling, leading to experience of more positive events and more fulfilling social relationships, which can further enhance well-being (Headey & Wearing, 1989; Magnus et al., 1993).



In terms of the widely used Five-Factor Model, traits such as extraversion and neuroticism have received the most theoretical attention, research and popularity in relation with happiness (DeNeve & Cooper, 1998; Lucas & Diener, 2000; McCrae, 2002). According to Eysenck (1990), these two personality traits are independent and biologically based personality factors, making up the most robust predictors of happiness. Of the theories that have been presented in the literature, most acknowledge that activities, sociability, warmth, and optimism constitute important first order characteristics of extraversion (Lucas & Fujita, 2000; McCrae, 2000; Eid, Reimann, Angleitner, & Borkenau, 2003; Tkach & Lyubomirsky, 2006). People who like themselves, who have positive beliefs about the future and who are sociable tend to be happier in their lives (Argyle & Lu, 1990; Argyle, 2001). In contrast, neuroticism is linked with negative affect, emotional reactivity, anxiety and low self-esteem (Carver, Sutton, & Scheier, 2000; Lucas & Fujita, 2000; Lynn & Steen, 2006). Therefore, it is not surprising to observe empirical data consistently showing that extraversion and neuroticism are significantly related and reliably predict levels of happiness (DeNeve & Cooper, 1998; Lyubomirsky et al., 2005). Findings from adult studies on the relationships between happiness, extraversion, neuroticism, and self-reported social competence suggest that happiness is positively associated with extraversion but negatively associated with neuroticism (Argyle & Lu, 1990), and that self-reported social competence acts as a mediator between temperament variables and happiness. Similar findings have been reported among children and adolescents (Huebner, 1991; Ash & Huebner, 2001; Greenspoon & Saklofske, 2001; McKnight et al., 2002; Casas et al., 2004). In another study by Fogle et al. (2002), life satisfaction was found to be positively correlated with

extraversion and social self-efficacy, but negatively correlated with neuroticism, and mediate the relationship between life satisfaction and extraversion, but not between life satisfaction and neuroticism. Overall results showed that adolescent's perceptions of their ability to be competent in social settings lead to increased sociability and greater life satisfaction. Similarly, Rigby and Huebner (2005) provided evidence that adaptive attributions for good outcomes partially mediate the relationship between emotional stability and life satisfaction i.e. adolescents who were higher in emotional stability were more likely to make adaptive attributions for good outcomes, which in turn results to increased life satisfaction.

## **2.6. REVIEW OF PREVIOUS STUDIES ON HAPPINESS AND LIFE SATISFACTION**

Studies on happiness and life satisfaction have often been merged with studies on well-being (Campbell, Converse, & Rogers, 1976; Maddox, 1992). Researchers generally use the broader concept of subjective well-being to include both the studies of happiness (balance between the positive and negative components of mood) and life satisfaction (the extent to which needs, wants and goals are perceived to be fulfilled) (Diener, 1984; George, 1992; Maddox, 1992). Life satisfaction has been conceptualized as a cognitive component of subjective well-being, defined as the base for deciding/perceiving the extent of fulfillment/satisfaction of needs. According to Bradley and Corwyn (2004), high satisfaction suggests that the quality of life, in the population concerned, is good and low satisfaction on the other hand indicates serious shortcomings of some kind. This reflects both the extent to which basic needs are met and the extent to which a variety of other goals are viewed as attainable. According to this perspective, it may be interpreted

that by the mere realization of more goals, life satisfaction will also increase. According to Beutell (2006), life satisfaction has a positive relationship with better physical and mental health, longevity, and other positive outcomes. In addition, Chow (2009) argues that improved levels of life satisfaction give rise to better health in the future. Borooah (2006) provided evidence that the degree of satisfaction with life standards is a factor for attaining happiness. Lyubomirsky et al. (2006) claimed that general satisfaction with life, social relationships and disposition and temperamental features (e.g., being extrovert) are the best predictors of happiness.

## **2.7. REVIEW OF PREVIOUS STUDIES ON HAPPINESS AND SOCIAL RELATIONSHIP**

Social relationship is one of the important domains of SWB and considered to be the strongest predictor of happiness (Campbell, Converse, & Rodgers, 1976; Myers, 2000; Argyle, 2001). This is in accord with the arguments of numerous researchers regarding the importance of group living and interpersonal relationships (Baumeister & Leary, 1995; Taylor et al., 2000). Baumeister and Leary (1995) claimed that human beings have a fundamental *need to belong* which is shaped by natural selection over the course of human evolution. They further maintained that this need leads people to form social relationships with concomitant beneficial effects on adjustment and well-being. Also, there are research evidence to prove that satisfying social relationships and social activities are important factors in the development of lasting happiness (Argyle et al., 1989; Diener & Seligman, 2004). In line with studies on social relationships, researcher has emphasized on the importance of intimacy which can be defined as the ability of perceived responsiveness to emotionally self-relevant disclosures which reflect the key

aspects of one's core psychological self (Reis, 2001). The primary functional importance of social relationships focuses on social support and its complimentary effects on mental and physical health (Cohen et al., 2000; Taylor, 2010).

There are ample empirical evidence stating that social relationships are strongly correlated with happiness. For instance, support from family, friends, and significant other is related to reports of greater subjective well-being (Wan, Jaccard, & Ramey, 1996; Walen, & Lachman, 2000; Gallagher & Vella-Brodrick, 2008). SWB is reliably related to objective, measurable aspects of an individual's social relationship network. Meta-analyses (Lucas & Dyrenforth, 2006; Lucas et al., 2008) on the relation between objective social variables (such as the number of relationships and number of friends) and SWB showed small to moderate range effect sizes. A meta-analysis on the association between 'social activity' and SWB showed average effect on life satisfaction and happiness with  $r=.16$ , and the quantity of social activity had medium to large effects ranging from  $r =.12$  to  $.17$ , depending on the specific dependent measure used (Okun, Stock, Haring, & Witter, 1984; Pinqart & Sørensen, 2000). In another study, researchers have assessed both the frequency and satisfaction with social activities across several samples, and found that satisfaction with social activities was significantly correlated with positive affect ( $r =.20$ ), negative affect ( $r =-.26$ ) and life satisfaction ( $r =.38$ ), whereas the frequency of social activities was consistently related only to life satisfaction ( $r =.19$ ) (Cooper, Okamura, & Gurka, 1992). There is substantial research that has found a range of psychological benefits associated with a supportive social network (Cohen, 2004; Koenig, George, & Titus, 2004; Dulin, 2005).

Research findings have confirmed that relationships are of the most important sources of happiness (Diener, 1984; Argyle, 1987; Ryff, 1989; Myers, 1992; Kahana et al., 1995; Myers & Diener, 1995). Numerous studies support the positive relationship between happiness and friendship, marriage, intimacy, and social support (Lyubomirsky et al., 2006). For instance, studies showed that those who could name five or more friends with whom they can discuss or disclose important matters in the last 6 months were 60% more likely to report being 'very happy' (Henderson et al., 1981; Myers, 1992). Indeed, people are happiest when surrounded by friends (Csikszentmihalyi & Hunter, 2003). Myers (1992) also claimed that happy people are more likely to have friends who encourage and support them as having a supportive social circle really act as a defense mechanism against stressors and life events. Research findings indicate that close friendships can buffer stress and reduce distress arising due to loneliness, anxiety, boredom, and loss of self-esteem (Peplau & Perlman, 1982; Reis, 1984; Argyle, 1987).

## **2.8. SIGNIFICANCE OF THE STUDY**

Happiness has been much-researched topic from various perspectives because human beings thrive to achieve it. We generally presume to know what happiness is when we feel or experience it, yet we do not know what its components are. Whilst enormous attempts have been made on how to be a happy person, but researches need to meticulously study the available resources and factors that play a significant role in determining the reported happiness of an individual. There are numerous psychological queries such as, who is called a happy person and what makes him/her happy; what role does aging have on happiness; how social variables relate to happiness. As such, there are various research questions to critically analyze and study the psychological investigations

on happiness. The present research study is a small attempt to understand happiness from a psychological perspective.

Age seemed to play an important role in how we function, behave or act, because of the underlying social and cultural norms that we are bound to observe and follow. Existing literature showed that there are three basic trends on age-happiness relationship: the first trend is the U-curve relationship between age and happiness; the second trend is the inverted U-curve relationship between age and happiness, and the third trend is the linear relationship between age and happiness, keeping in mind that there are different tools of measuring happiness and the age differentiation may vary to some extent across researches. In the present study, happiness across three age groups will be explored to test whether the aforementioned three trends of relationships between happiness and age stands true in the Indian context. And if so, the present investigation attempts to find an answer on the variation of happiness across age groups. Hence, this study will prove significant and relevant to human flourishing. The present study may add to the knowledge of happiness and may contribute toward developing a healthy outlook on building adequate personal resources and architect our own happiness. The present study is probably the first of its kind to investigate happiness in relation to psychosocial variables, such as self-esteem, stress, personality, life satisfaction and social relationships which are considered as important elements of human life.

## **2.9. OBJECTIVES**

The research objectives of the present study were briefly outlined as follows:

**O1:** To examine happiness across three age groups i.e., late adolescents, young adults and elderly.

**O2:** To examine the relationship between happiness and self-esteem, stress, personality, life satisfaction, and social relationship across three age groups i.e., late adolescents, young adults and elderly.

**O3:** To study happiness across three age groups (i.e., late adolescents, young adults and elderly) after controlling self-esteem, stress, personality, life satisfaction, and social relationship.

**O4:** To study gender differences of happiness across three age groups i.e., late adolescents, young adults and elderly.

**O5:** To study the relationship between happiness and socio-demographic variables across three age groups i.e., late adolescents, young adults and elderly.

**O6:** To evaluate the main effect of selected socio-demographic variables on happiness across three age groups i.e., late adolescents, young adults and elderly.

## **2.10. HYPOTHESES**

Based on the existing literature on happiness studies, 12 hypotheses were framed in the present study to be explored. Hypothesis 1 was framed to study objective 1. Hypotheses 2, 3, 4, 5, and 6 were framed to study objective 3. Subsequently, hypothesis 7 was framed to study objective 3. Hypotheses 8, 9 and 10 were framed to study objective 4 of the present study. Finally, hypothesis 11 and 12 were framed to study objective 5 and 6 respectively. The hypotheses framed are given as below:

**H1: There will be significant difference in happiness across late adolescents, young adults and elderly.**

It is based on the earlier empirical findings using various measurement tools that happiness and age are related in three different ways: U-curve relationship (Gredtham &

Johannesson, 2001; Frey & Stutzer, 2002; Peiro, 2006; Frijters & Beatton, 2012); inverted U-curve relationship (Mroczek & Kolarz, 1998; Easterlin, 2006; Howell et al., 2006), and the linear relationship (Stock, Okun, Haring, & Witter, 1983; Gove, Ortega, & Style, 1989; Shmotkin, 1990; Cartensen et al., 1999; Yang, 2008; Thomas et al., 2016). In the present study, happiness across late adolescents, young adults and elderly will be explored using two measures of happiness viz, Oxford Happiness Questionnaire (OHQ), and Subjective Happiness Scale-Revised (SHS-R), and cross-check whether happiness really increase or decrease with age. The main reason for using two scales of happiness is to observe participant's score variation on these measures which will enable the present study to analyze differences in reported happiness score of the participants on both OHQ and SHS-R.

**H2: Happiness will be positively related with self-esteem across late adolescents, young adults and elderly.**

Self-esteem has been found to be one of the major factors which shape our happiness, because it affects our overall concept of self-worth, self-confidence and self-respect. It plays a significant role in determining how a person perceives himself/herself which directly/indirectly influences one's level of happiness. It is evident that having higher self-esteem establishes stronger self-worth which would positively contribute to our well-being and happiness as earlier researches have demonstrated that there is a significant positive correlation between self-esteem and happiness (Furr, 2005; Lyubomirsky, Tkach, & DiMatteo, 2006). Thus, the present study aims to examine the relationship between happiness and self-esteem in late adolescents, young adults and elderly by using two



happiness measures (OHQ, SHS-R) and Rosenberg Self-Esteem Scale (RSES) as the self-esteem measure.

**H3: Happiness will be negatively related with stress across late adolescents, young adults and elderly.**

Stress creates excessive amount of mental pressure and anxiety in life, and the negative impact of stress deteriorates one's level of happiness as indicated in earlier research findings (Chatters, 1988; Zika & Chamberlain, 1987; King et al., 2014) wherein those who reported low perceived happiness have higher stress levels keeping in mind that there are various scales for measuring stress. In the present study, attempt has been made to examine the relationship between happiness and stress, across the age groups, using Perceived Stress Scale (PSS), having 14 items, OHQ and SHS-R as happiness measures.

**H4: Happiness will be positively correlated with openness, conscientiousness, extraversion, agreeableness, but negatively correlated with neuroticism across late adolescents, young adults and elderly.**

Happiness has been found to be associated with personality to a large extent. Based on earlier study by McCrae and Costa (1991), Argyle and Lu (1990), and Lu and Shih (1997), it can be said that openness, agreeableness, conscientiousness and extraversion has been found to stimulate positive experience during social interactions and thereby increases the experience of well-being. On the other hand, emotional stability, also called as neuroticism, reflects the relative stability in our mood, feelings, emotions and experience in the face of adversity or certain life-events. This personality dimension has been found to be negatively associated with happiness. Thus, the present study aims to re-examine the association between happiness and personality across late adolescents,

young adults and elderly, using Big Five Inventory (John & Srivastava, 1999) as previous studies on happiness and personality have employed NEOFI (Costa & McCrea, 1989) and EPQ (Eysenck & Eysenck, 1975).

**H5: Happiness will be positively related with life-satisfaction across late adolescents, young adults and elderly.**

Having satisfaction with life is a major source of happiness. According to Lyubomirsky et al. (2006), the best predictors of happiness are global life satisfaction, social relationships and purpose in life, which was assessed using the Subjective Happiness Scale (SHS) and Satisfaction with Life Scale (Diener et al., 1985). The present study would use Satisfaction with Life Scale (SWLS) and examine its relationship with happiness, using OHQ and SHS-R as the happiness measures.

**H6: Happiness will be positively related with social relationship across late adolescents, young adults and elderly.**

Social relationship and happiness have been found to be closely related to each other as research demonstrated that social relationship is one of the predictors of happiness (Sherbourne & Stewart, 1991; Lyubomirsky et al., 2006). Social relationships which are enriching, helpful and nurturing goes a long way in dealing with stressors and negative life events through the love, support and care of our dear ones. It can also enhance one's level of happiness as it helps to build and restore our personal resources through shared experience in social life. In the present study, social relationship will be measured using *The Positive Relations with Others Scale* (Ryff, 1985) having 14 items in order to explore the association between social relationship and the happiness measures (OHQ, SHS-R).

**H7: There will be significant difference in happiness across late adolescents, young adults and elderly after controlling self-esteem, stress, personality dimensions, life satisfaction, and social relationship.**

The present study attempts to investigate whether happiness across age group is controlled by variables such as self-esteem, stress, personality, life-satisfaction and social relationship, which would be measured by Rosenberg Self-Esteem Scale, Perceived Stress Scale, Big Five Factor Inventory, Satisfaction with Life Scale and Positive Relationship with Others Scale, respectively. Thus, hypothesis 8 was framed to study objective 4 of the present study.

In an attempt to study objective 4 (i.e. to study gender differences of happiness across three age groups i.e., late adolescents, young adults and elderly), three hypotheses (H8, H9, and H10) were framed.

**H8: Male late adolescents will be happier than female late adolescents.**

**H9: Male young adults will be happier than female young adults.**

**H10: Male elderly will be higher happier than female elderly.**

Previous studies revealed that there are statistically significant gender differences in happiness (Wood, Rhodes, & Whelan, 1989; Stevenson & Wolfers, 2008) with contradictory findings of both, males associated with lower happiness (Gredtham & Johannesson, 2001; Frey & Stutzer, 2002; Subramanian et al., 2005) and females reporting greater happiness than males (Clark & Oswald, 1994; Theodossiou, 1998; Umberson et al., 1996). Thus, it would be interesting to explore the gender differences in happiness across the three age groups-late adolescents, young adults and elderly. In the

present study, H8, H9, and H10 will examine the gender differences in late adolescents, young adults and elderly respectively.

**H11: Happiness will be significantly and positively related with socio-demographic variables across late adolescents, young adults and elderly.**

Several empirical studies have examined the relationship between socio-demographic variables and happiness (DeNeve & Cooper, 1998; Chang, Asakawa, & Sanna, 2001; Easterlin, 2001; Oswald, 2002; Wolfers, 2003; Chang & Asakawa, 2003; Diener et al., 2003; Stutzer, 2004; Clark et al., 2007; Bilbao et al., 2007; Inglehart et al., 2008; Lyubomirsky, 2008; Graham, 2010; Diener, Ng, Harter, & Arora, 2010; Schnettler et al., 2012). There have been reports of happiness positively associated with age, gender, religion, rural/urban location of residence, marital status, family type, education, occupation and income, and at the same time, the relationship can be negative association as well. This study will re-examine the relationship between happiness and aforementioned socio-demographic variables in an attempt to analyze which socio-demographic variables has positive relationship with happiness in the Indian context.

**H12: There will be significant effect of selected socio-demographic variables on happiness across late adolescents, young adults and elderly.**

The socio-demographic variables (which would have significant and positive relationship with happiness) would be carefully selected to determine its significant effect on happiness across the three age groups. This will help in identifying the important socio-demographic variables which might affect happiness and such findings can facilitate further research on the significant effect of such socio-demographic variables on the level of happiness.

## **2.11. OVERVIEW**

In this chapter, previous scientific studies on happiness as a psychological construct have been discussed in an attempt to fill the research gap between this study and earlier empirical studies on happiness. Studies showed that there are mixed trends of happiness across age groups, i.e., U-curve, inverted U-curve, and linear relationship. Relationship between happiness and socio-demographic variables were also found to have mixed speculations as well, as studies reported both positive and negative relationship between happiness and age, gender, religion, location of rural/urban residence, marital status, education, occupation, and income. Relationship between happiness and control variables indicated that happiness was positively associated with self-esteem, life satisfaction, social relationship and personality dimensions of openness, conscientiousness, extroversion, and agreeableness. However, happiness was negatively associated with stress and personality dimensions of neuroticism. The methodologies used in past studies were also checked to extract information on how the findings were derived so that it can be examined further in the present study. Based on existing literature, objectives, and hypotheses of the present study were framed.

This study is a small attempt to investigate happiness across age groups, using self-esteem, stress, personality, life satisfaction, and social relationships as control variables. Also, the relationship between happiness and socio-demographic variables would be determined to observe the significant effect of selected socio-demographic variables on happiness that has significant and positive relationship with happiness. Methods used in this study will be discussed in the next chapter.

# **CHAPTER III**

# **CHAPTER III**

## **METHODOLOGY**

### *Chapter Outline*

- 3.1. Introduction
- 3.2. Operational Definitions of the Variables
- 3.3. Methodology
  - 3.3.1. Population
    - 3.3.1.1. Inclusion Criteria
    - 3.3.1.2. Exclusion Criteria
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    - 3.3.2.1. Semi-Structured Performa
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    - 3.3.2.4. Rosenberg Self Esteem Scale (RSES)
    - 3.3.2.5. Perceived Stress Scale (PSS)
    - 3.3.2.6. Big Five Inventory (BFI)
    - 3.3.2.7. Satisfaction with Life Scale (SWLS)
    - 3.3.2.8. Positive Relation with Others Scale (PROS)
  - 3.3.3. Tools Used
- 3.3.4. Procedure of Data Collection
- 3.4. Statistical Analysis
- 3.5. Overview

## **CHAPTER III**

### **METHODOLOGY**

#### **3.1. INTRODUCTION**

This chapter gives an insight into the methods used in the present study. Description of the variables employed; sample from where data was collected; study design; inclusion and exclusion criteria of sampling; procedure of data collection; measurement tools employed in the study and the statistical tools to be applied for drawing inferences are discussed in detail.

#### **3.2. OPERATIONAL DEFINITION OF THE VARIABLES**

In the present study happiness along with socio-demographic and psychosocial variables were used to investigate if happiness across age groups is significant even after controlling psychosocial variables, and to examine the relationship between happiness and socio-demographic variables.

##### **Operational Definition**

Based on existing research literature, the following operational definitions were formulated for the present research. Happiness was used as the dependent variable, three age groups of late adolescents, young adults and elderly were used as independent variable, and self-esteem, stress, personality, life satisfaction and positive relationship with others were used as the control variables in the present study. Operational definition of dependent variable, socio-demographic variables and control variables are given as below:



**1) Happiness**

Happiness was conceptualized as the sustained (trait) experience of feeling content, a state of well-being, rather than the fleeting momentary experience of intense joy.

**2) Socio-demographic variables**

The variables which represents the socio-demographic details, such as age, gender, religion, rural/urban location of residence, marital status, family type, education, occupation, and income.

**3) Self-esteem**

Self-esteem is a person's overall positive evaluation about himself/herself, the extent to which he/she believes oneself to be significant and worthy.

**4) Stress**

Stress can be described as the uncomfortable experience of excessive worry or mental tension due to external and internal factors.

**5) Personality**

Personality can be defined as the overall characteristics of an individual, comprising five core components as openness to experience, conscientiousness, agreeableness, extraversion and emotional stability (neuroticism).

**6) Life-satisfaction**

Life-satisfaction in the present study has been conceptualized as the overall satisfaction with one's life, the fulfillment of required needs and desires in life.

**7) Positive social relationship with others**

Positive social relationship with others indicates the significant interpersonal relationship with people surrounding us, which positively contributes to our overall well-being.

### **3.3. METHODOLOGY**

In the planning of the study, the investigator endeavours to choose the method most suitable to the issue under consideration. The nature of research depends on the exactness of configuration as well as on the productivity of the technique for the review keeping the nature and goals of the review in perspectives. The observational verification of the proposed hypotheses, notwithstanding, is needed firstly, on the dependable estimation of the factors of extreme intrigue, and besides, on the methods and procedure for getting conclusions from such measurements. This requires:

- o Selection of a suitable sample;
- o Selection of proper tools that could be gainfully utilized for solid measures; and
- o Selection of appropriate statistical techniques for analyzing the data.

The methodology has its own significance in logical research since objectivity in any exploration research cannot be acquired unless it is completed in a highly systemic and arranged way. Logical research includes cautious reception of proper research configuration, utilization of institutionalized instruments and tests, picking sufficient samples by utilizing proper inspecting systems, undertaking sound procedure for gathering information, and utilization of suitable statistical procedures for analyzing the information.

#### **3.3.1. POPULATION**

Students of Govt. Senior Secondary Schools and B.Ed. Colleges of Manipur, research scholars from different streams of Manipur University, and pensioners registered in

pensioner's association or organization at Imphal, Manipur constituted the population of the present study.

### **3.3.2. SAMPLE**

The present study would use quantitative research approach, employing cross-sectional study design to examine happiness across three age groups- late adolescents, young adults and elderly. Random sampling method were used for drawing the samples of the present study. The present study aims to examine happiness across three different age groups (Study II). For this, a preliminary study (Study I) was carried out to investigate the reliability and item-total correlation of the happiness measures, to find out if they have adequate psychometric properties to be deemed fit for use in the main study.

The present research study was divided into two sub-studies:

#### **Study I**

*Objective:* To examine the reliability and item-total correlation of the two happiness measures i.e., Oxford Happiness Questionnaire (Hills & Argyle, 2002) and Subjective Happiness Scale (Lyubomirsky & Lepper, 1999).

*Sample:* One hundred and fifty participants (Males = 75; Females = 75) in the age group of 16 to 70 years ( $M=37.39$  &  $SD=21.76$ ) formed the non-clinical sample of this preliminary study. The inclusion and exclusion criteria of the samples in study I remains the same as in study II.

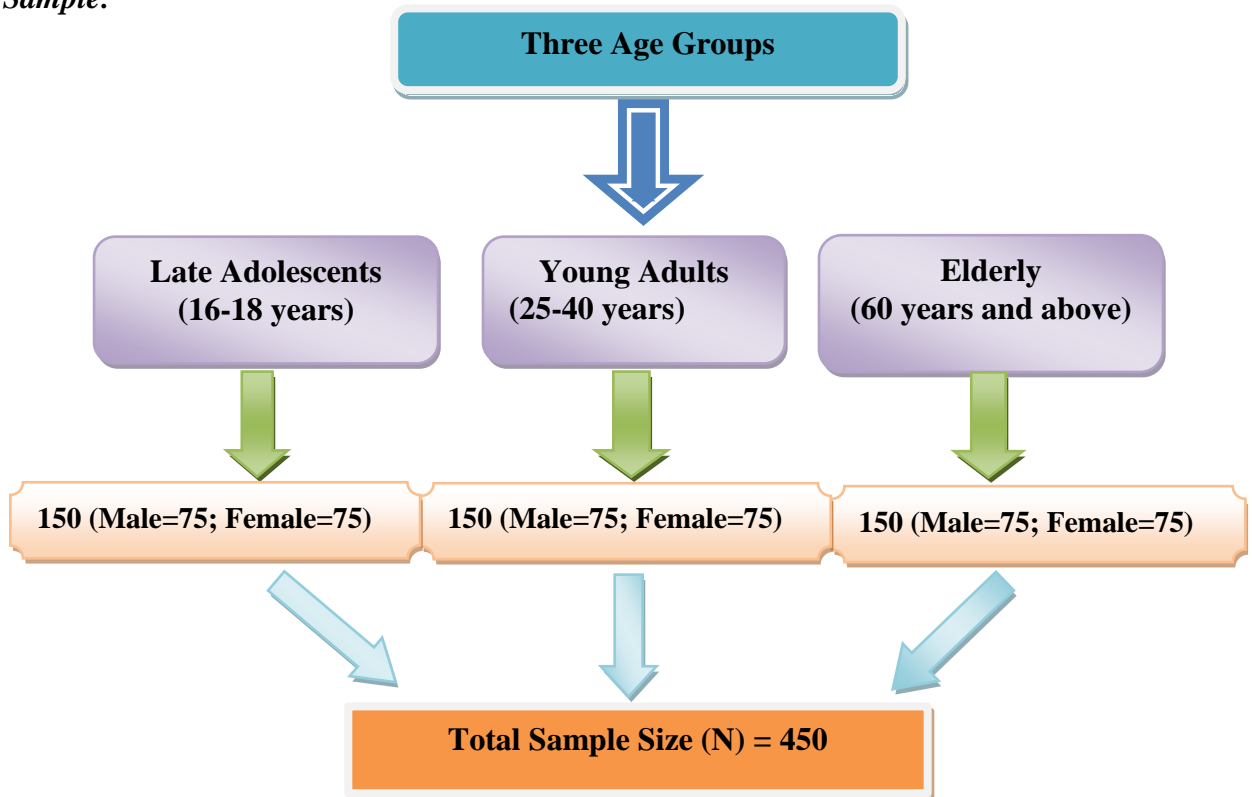
*Sample Characteristic:* The research data was collected from Imphal, Manipur.

#### **Study II**

*Objective:* To examine if older people (elderly) are happier than younger people (young adults and late adolescents) and examine the relationship between happiness and control

variables. Further, it would be examined if happiness across age groups would be still significant after controlling self-esteem, stress, five factor personality, life satisfaction, and social relationship.

**Sample:**



**Figure 3.1:** Diagram showing details of the sample in the present study

**Inclusion Criteria:**

1. Age Range:
  - a) Late Adolescents in age of 16-18 years
  - b) Young Adults in age of 25- 40 years
  - c) Elderly in the age of 60 years and above
2. Gender: Male and Female
3. Late adolescents, young adults and elderly who were willing to give informed consent.

4. Late adolescents, young adults and elderly who were educated (tenth standard and above).
5. Late adolescents and young adults who were having source of pocket money or scholarship.
6. Elderly who were retired from any service.
7. Elderly who were having any source of income (including pension).
8. Elderly who were living with their spouse at home.

***Exclusion Criteria:***

1. Person with any major physical or mental illness.
2. Elderly with cognitive deficits.
3. Participants who could not give informed consent.
4. Participants who left during data collection.
5. Middle adult age range of 41-59 years.
6. Young adult age range of 19-24 years.

The categorization of age into 16-18 years as late adolescents, 25 to 40 years as young adults and 60 years and above as elderly has been adapted from Newman and Newman's (1991) classification of life stages and associated developmental tasks, and psychosocial developmental stages by Erikson (1950). Although, there has been much

debate over what exact criterion should be defined for a specific age to be called as adolescent, adult and elderly, but in the present research the main intention was to observe the difference in one variable (happiness) across different age groups. Thus, the three underlying age groups were formed with certain age range. In the present study, terms *elderly* and *older persons* have been used interchangeably.

### **3.3.3. ETHICAL CONSIDERATIONS**

1. Participation was voluntary and anonymous.
2. All participants were assured of confidentiality and were also informed to assert this right to withdraw at any time.
3. All the personal information of the participants has been locked in their respective files and was assessed only by the researcher.
4. The participants' details will be destroyed few years after the study.

### **3.3.4. TOOLS USED**

Some of the existing popular happiness scales (Table 3.1) were scrutinized to select the most suitable and appropriate scale to be used in Indian context for the present study. Happiness scales having good reliability and validity values, and which have been previously used in Indian context were carefully checked. Of all the available happiness scales, two scales were selected to be used in the present study, which are Oxford Happiness Questionnaire (OHQ) by Hills and Argyle (2002), and Subjective Happiness Scale (SHS) by Lybomirsky and Lepper (1999). The SHS was later revised into SHS-R by adding four similar items to increase its internal consistency (as poor internal consistency was found in the preliminary study) to be used in the main study (Study II).

The following tools have been employed in the present study:

#### **3.3.4.1. SEMI-STRUCTURED PERFORMA (Self, 2015)**

It was developed by self (2015) to be used in this study, with an aim to extract socio-demographic information of the sample, such as age, gender, religion, residence, marital status, family type, education, occupation, and monthly income.

#### **3.3.4.1. OXFORD HAPPINESS QUESTIONNAIRE (OHQ) (Hills & Argyle, 2002)**

The Oxford Happiness Questionnaire (OHQ) is an improved instrument of happiness measure, which has been derived from the Oxford Happiness Inventory (OHI). The OHI comprises of 29 items, and the items of OHQ are very similar to items that of the OHI, each presented as a single statement which can be endorsed on a uniform six-point Likert scale. The original Oxford Happiness Inventory (OHI) was developed by Argyle, Martin, and Crossland (1989) as a broad measure of personal happiness. The scale has been found to have good psychometric properties and research reported it to be fairly consistent and have been used across different countries and cultures (Furnham & Brewin, 1990; Joseph & Lewis, 1998; Sanchez, 1994; Valiant, 1993; Francis, Brown, Lester, & Philipchalk, 1998).

*Table 3.1 Existing Popular Scales of Happiness*

| <b>Scale</b>  | <b>Author<br/>(Year of<br/>Publication)</b> | <b>Happiness concept</b>   | <b>Item<br/>No.</b> | <b>Sub-scale</b> | <b>Score Pattern</b>  |
|---|---|--|---------------------|------------------|---|
| Bradburn Affect<br>Balance Scale                                    | Bradburn (1965)                             | Happiness is the difference between positive and negative affective states.                            | 10                  |                  | The scale is scored by subtracting the negative items (no) from the positive items (yes). |
| The Memorial<br>University of<br>Newfoundland<br>Scale of Happiness | Kozma and Stones<br>(1980)                  | Measures both short and long-term aspects of well-being.   | 24                  |                  | The scale is scored by subtracting the negative items from positive items.                |
| The Satisfaction<br>with Life Scale                                 | Diener et al. (1985)                        | Measures pleasure, life satisfaction, positive emotions, a meaningful life and feeling of contentment. | 5                   |                  | Seven-point scale from 7 (strongly agree) to 1 (strongly disagree)                        |
| Depression-<br>Happiness Scale                                      | McGreal and Joseph<br>(1985)                | This scale represents depression and happiness as opposite ends of a single continuum.                 | 25                  |                  | Four-point scale ranging from 0 (never) to 3 (often)                                      |



|                                    |                               |  |                             |  |  |
|------------------------------------|-------------------------------|--|-----------------------------|--|--|
| Fordyce's Happiness Measure        | Fordyce (1988)                | Happiness is perceived as an emotional experience, such as long-term emotional well-being and contentment - a feeling that one is happy. | 1                           |  | Eleven-point scale from 0 (Extremely unhappy) to 10 (Extremely happy)  |
| The Psychological well-being scale | Ryff (1989)                   | A balanced life is being able to engage in different aspects of well-being, rather than being narrowly focused.                          | 14 items for each sub-scale | Autonomy, Environmental Mastery, Personal Growth, Positive Relations with others, Purpose in Life, and Self-Acceptance | Six-point format: strongly disagree (1), moderately disagree (2), slightly disagree (3), slightly agree (4), moderately agree (5), strongly agree (6). |
| Subjective Happiness Scale         | Lyubomirsky and Lepper (1999) | Global subjective assessment of whether one is happy or unhappy.   | 4                           |  | Seven-point scale ranging from 1 (not a very happy person) to 7 (a very happy person)  |
| Oxford Happiness Questionnaire     | Hills and Argyle (2002)       | Measure one's reported general happiness level.  | 29                          |  | Six-point scale from 1 strongly disagree to 6 strongly agree   |

|                                |                                     |  |                            |                                   |  |
|--------------------------------|-------------------------------------|--|----------------------------|-----------------------------------|--|
| Orientation to Happiness Scale | Peterson, Park, and Seligman (2005) | 'Authentic happiness' is the balance of three approaches to life i.e., the pleasant (pleasurable) life, the good (engaged) life and the meaningful life. | 6 items for each sub-scale | Pleasure<br>Meaning<br>Engagement | Five-point scale from 1(Much less like me) to 5 (Very much like me)    |
| Single Item Happiness Scale    | Abdel-Khalek (2006)                 | The degree to which one judges the quality of one's life favorably.  | 1                          |                                   | Eleven-point scale from 0(Minimum)-10 (Maximum)                        |
| Pemberton Happiness Index      | Hervás and Vásquez (2013)           | Measure integrative well-being that includes remembered and experienced well-being.  | 23                         |                                   | Eleven-point scale from 0 (total disagreement) to 10 (total agreement) |

OHI was later developed into OHQ by Hills and Argyle (2002) and the scale consists of 29 items, scored on a six-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). It has 17 positive items and 12 negative items. The negative items use reverse score. The sum of all the scores on 29 items gives the overall measure of happiness, with high scores indicating greater happiness. The OHQ demonstrated high scale reliability with Alpha Cronbach value ( $\alpha$ ) =0.91. The inter-item correlations for the original OHQ ranged from -0.04 to 0.65, with mean 0.28. The item-total correlation of OHQ in study I fetched weak to strong Pearson's correlation ranging from 0.10 to 0.58 (Table 3.2), and Cronbach's alpha ( $\alpha$ ) value of 0.80. Item number 14 was found to have weak positive item-total correlation of .10 in preliminary Study I. However, it was not removed from the scale as the Cronbach's alpha value was considerably good. Thus, all the original items of OHQ were maintained and used in main study (Study II).

**Table 3.2: Item-total correlation of Oxford Happiness Questionnaire (OHQ) items in Study I**

| <b>Item No.</b> | <b>Item</b>  | <b>Item-total correlation</b> |
|-----------------|--|-------------------------------|
| 1.              | I don't feel particularly pleased with the way I am. | .41**                         |
| 2.              | I am intensely interested in other people.           | .26**                         |
| 3.              | I feel that life is very rewarding.                  | .26**                         |
| 4.              | I have very warm feelings towards almost everyone.   | .23**                         |
| 5.              | I rarely wake up feeling rested.                     | .22**                         |
| 6.              | I am not particularly optimistic about the future.   | .56**                         |

|     |  |       |
|-----|--|-------|
| 7.  | I find most things amusing.  | .37** |
| 8.  | I am always committed and involved.                                  | .42** |
| 9.  | Life is good.  | .52** |
| 10. | I do not think that the world is a good place.                       | .42** |
| 11. | I laugh a lot.   | .34** |
| 12. | I am well satisfied about everything in my life.                     | .56** |
| 13. | I don't think I look attractive.                                     | .52** |
| 14. | There is a gap between what I would like to do and what I have done. | .10   |
| 15. | I am very happy.   | .58** |
| 16. | I find beauty in some things.  | .40** |
| 17. | I always have a cheerful effect on others.                           | .31** |
| 18. | I can fit in (find time for) everything I want to.                   | .36** |
| 19. | I feel that I am not especially in control of my life.               | .48** |
| 20. | I feel able to take anything on.                                     | .57** |
| 21. | I feel fully mentally alert.   | .23** |
| 22. | I often experience joy and elation (happiness).                      | .31** |
| 23. | I don't find it easy to make decisions.                              | .32** |
| 24. | I don't have a particular sense of meaning and purpose in my life.   | .30** |

|     |   |       |
|-----|---|-------|
| 25. | I feel I have a great deal of energy.                 | .51** |
| 26. | I usually have a good influence on events.            | .55** |
| 27. | I don't have fun with other people.                   | .42** |
| 28. | I don't feel particularly healthy.                    | .52** |
| 29. | I don't have particularly happy memories of the past. | .46** |

Note: \*\* $p < .01$

In study II, OHQ revealed adequate psychometric properties with Cronbach's alpha ( $\alpha$ ) value of 0.77 and item-total correlation ranged from 0.17 to 0.54, all positively, significantly correlated as given in Table 3.3.

**Table 3.3: Item-total Correlation of Oxford Happiness Questionnaire (OHQ) items in Study II**

| Item No. | Item   | Item-total correlation |
|----------|--|------------------------|
| 1.       | I don't feel particularly pleased with the way I am. | .33**                  |
| 2.       | I am intensely interested in other people.           | .2- **                 |
| 3.       | I feel that life is very rewarding.                  | .37**                  |
| 4.       | I have very warm feelings towards almost everyone.   | .43**                  |
| 5.       | I rarely wake up feeling rested.                     | .18**                  |
| 6.       | I am not particularly optimistic about the future.   | .38**                  |

|     |  |       |
|-----|--|-------|
| 7.  | I find most things amusing.  | .33** |
| 8.  | I am always committed and involved.                                  | .41** |
| 9.  | Life is good.  | .54** |
| 10. | I do not think that the world is a good place.                       | .41** |
| 11. | I laugh a lot.   | .27** |
| 12. | I am well satisfied about everything in my life.                     | .40** |
| 13. | I don't think I look attractive.                                     | .32** |
| 14. | There is a gap between what I would like to do and what I have done. | .17** |
| 15. | I am very happy.   | .53** |
| 16. | I find beauty in some things.  | .26** |
| 17. | I always have a cheerful effect on others.                           | .45** |
| 18. | I can fit in (find time for) everything I want to.                   | .39** |
| 19. | I feel that I am not especially in control of my life.               | .30** |
| 20. | I feel able to take anything on.                                     | .36** |
| 21. | I feel fully mentally alert.   | .42** |
| 22. | I often experience joy and elation (happiness).                      | .47** |
| 23. | I don't find it easy to make decisions.                              | .26** |
| 24. | I don't have a particular sense of meaning and purpose in my life.   | .44** |

|     |   |                   |
|-----|---|-------------------|
| 25. | I feel I have a great deal of energy.                 | .43 <sup>**</sup> |
| 26. | I usually have a good influence on events.            | .45 <sup>**</sup> |
| 27. | I don't have fun with other people.                   | .43 <sup>**</sup> |
| 28. | I don't feel particularly healthy.                    | .28 <sup>**</sup> |
| 29. | I don't have particularly happy memories of the past. | .43 <sup>**</sup> |

Note: \*\* $p < .01$

### **3.3.4.2. SUBJECTIVE HAPPINESS SCALE-Revised (SHS-R) (Adapted from Lyubomirsky & Lepper, 1999)**

Subjective Happiness Scale (SHS) originally is a four-item scale developed by Lyubomirsky and Lepper (1999), designed to measure subjective happiness. Each of the items is completed by choosing one of the seven options that finish a given sentence fragment ranging from not a very happy person to a very happy person, less happy to happier and not at all to a great deal. The options are different for each of the four questions. The sum of the scores for all the four items gives the total subjective happiness score of the respondent. Higher score indicates higher level of subjective happiness. The internal consistency among the four items of SHS tested using Cronbach's alpha coefficient reliability showed good internal consistency, demonstrating comparability across samples of varying ages, occupations, languages and cultures. The alpha ranged from 0.79 to 0.94, mean = 0.86. The test-retest reliability ranged from 0.55 to 0.90 with time lag between testing sessions ranging from 3 weeks to 1 year. The convergent validity ranged from 0.52 to 0.72, between the Subjective Happiness Scale and other happiness measure.

In the present study, it was found that SHS showed poor Cronbach's alpha ( $\alpha$ ) of 0.54 in study I, although the item-total correlation showed considerably strong Pearson's correlation ranging from 0.514 to 0.736 as given in Table 3.4. The poor reliability value of SHS leads to the addition of four similar items, as a precautionary step, to the original four-items with similar scoring pattern, thus making it the Subjective Happiness Scale-revised, which was used in the study II.

**Table 3.4: Item-total Correlation of Subjective Happiness Scale (SHS) Items in Study I**

| <b>Item No.</b> | <b>Item</b>   | <b>Item-total correlation</b> |
|-----------------|---|-------------------------------|
| 1.              | In general, I consider myself   | .73**                         |
| 2.              | Compared to most of my peers (friends), I consider myself   | .63**                         |
| 3.              | Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you? | .72**                         |
| 4.              | Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?     | .51**                         |

Note: \*\* $p < .01$

The Cronbach's alpha ( $\alpha$ ) value of SHS-R was found to be 0.83, and the item-total correlation ranged from moderate to strong Pearson's correlation of 0.30 to 0.79, as given in Table 3.5.



**Table 3.5: Item-total Correlation of Subjective Happiness Scale-Revised (SHS-R) items in Study II**

| Item No. | Item  | Item-total correlation |
|----------|---|------------------------|
| 1.       | In general, I consider myself   | .77**                  |
| 2.       | Compared to most of my peers (friends), I consider myself   | .79**                  |
| 3.       | Compared to most of my family members, I consider myself  | .65**                  |
| 4.       | Compared to most of my neighbours, I consider myself  | .77**                  |
| 5.       | Compared to most of my community people, I consider myself  | .71**                  |
| 6.       | Compared to most of my relatives, I consider myself   | .78**                  |
| 7.       | Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you? | .67**                  |
| 8.       | Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?     | .30**                  |

Note: \*\* $p < .01$

### 3.3.4.3. ROSENBERG SELF-ESTEEM SCALE (RSES) (Rosenberg, 1965)

It was developed by Rosenberg (1965), and consists of ten items that measure the global self-worth by measuring both positive and negative feelings about the self. This scale assesses an individual's feelings of self-worth when the individual compares himself or herself to other people. The scale is an attempt to achieve a one-dimensional measure of

global self-esteem. It was designed to represent a continuum of self-worth, with statements that are endorsed by individuals with low self-esteem to statements that are endorsed only by persons with high self-esteem. The scale can also be modified to measure state self-esteem by asking the respondents to reflect on their current feelings. All items are answered using a four-point Likert Scale format ranging from “strongly agree” to “strongly disagree”. The internal consistency reliability of RSES ranges from 0.77 to 0.88 and test-retest reliability ranges from 0.82 to 0.85. The criterion validity of RSES is 0.55. The sum of scores of all the items indicates the total self-esteem score and higher score reveal higher self-esteem. Some of the popular self-esteem scales are provided in Table 3.6, out of which the Rosenberg Self-Esteem Scale has been found to be most appropriate and apt for the present study as it can be used on young adults and elderly samples, as well.

***Table 3.6: Some of the Available Self-esteem Scales***

| <b>Self-Esteem Scale</b>             | <b>Number of Items</b>  | <b>Target Group</b>            | <b>Developed by</b>    |
|--------------------------------------|---|--------------------------------|------------------------|
| Rosenberg Self-Esteem Scale          | 10  | 12 years and above             | Rosenberg (1965)       |
| Hare Self-Esteem Scale               | 30<br>(10 items for each of the three subscales: Peer, School & Home) | Between 10 and 18 years of age | Hare (1975)            |
| Adolescent Self-Esteem Questionnaire | 13  | Between 14 to 17 years of age  | Hafekost et al. (2017) |

In the present study, the internal consistency (Cronbach's alpha) of RSES was found to be 0.56, and item-total correlation ranged from 0.20 to 0.55, with all items found to be significantly correlated at 0.01 level of significance. This shows that RSES used in the present study have adequate psychometric properties to be considered a standardized measure of self-esteem.

**Table 3.7: Item-total correlation of Rosenberg Self-Esteem Scale (RSES) items in Study II**

| <b>Item No.</b> | <b>Item</b>   | <b>Item-total correlation</b> |
|-----------------|---|-------------------------------|
| 1.              | On the whole I am satisfied with myself.                                    | .38**                         |
| 2.              | At times I think I am no good at all.                                       | .55**                         |
| 3.              | I think that I have a number of good qualities.                             | .41**                         |
| 4.              | I am able to do things as well as most other people.                        | .41**                         |
| 5.              | I feel I do not have much to be proud of.                                   | .41**                         |
| 6.              | I certainly feel useless at times.  | .51**                         |
| 7.              | I feel that I am a person of worth, at least on an equal plane with others. | .47**                         |
| 8.              | I wish I could have more respect for myself.                                | .20**                         |
| 9.              | All in all, I am inclined to feel that I am a failure.                      | .43**                         |
| 10.             | I take a positive attitude toward myself.                                   | .36**                         |

Note: \*\* $p < .01$

### 3.3.4.4. PERCEIVED STRESS SCALE (PSS) (Cohen & Williamson, 1988)

It was developed by Cohen and Williamson (1988) and designed to measure the degree to which situations in one's life are appraised as stressful. It is one of the most widely used psychological instruments for measuring the perception of stress. It has fourteen items and each item is scored on five-point scale ranging from "almost never" to "very often". The scores ranged from 0 to 30, and high score indicates high level of perceived stress. Research showed that the alpha coefficient reliability for the PSS was 0.85 and 0.86 for college student sample and smoking cessation sample respectively (Cohen & Williamson, 1988). Some of the available stress scales has been provided in Table 3.8 which shows that Perceived Stress Scale is considered the most suitable one for use in the present study, because the other available stress scales are not adequate to be administered across the three age groups.

*Table 3.8: Some of the Available Stress Scales*

| <b>Stress Scales</b>  | <b>Number of Items</b> | <b>Target Group</b> | <b>Developed by</b>         |
|---|------------------------|---------------------|-----------------------------|
| Perceived Stress Scale  | 14                     | 16 years and above  | Cohen and Williamson (1988) |
| Holes and Rahe Stress Scale, (Social Readjustment Rating Scale) | 43                     | 18 years and above  | Holmes and Rahe (1967)      |
| Gross's Stress Scale, (Standard Stress Scale)                   | 11                     | 14 years and above  | Gross and Seebass (2014)    |

Item-total correlation of the Perceived Stress Scale is provided in Table 3.9, and it ranged from 0.17 to 0.45, which falls under the weak to moderate range of correlation and it can be interpreted that the items of PSS are consistent with the average behavior of all the items. The internal consistency (Cronbach's alpha) of PSS was found to be 0.53.

**Table 3.9: Item-total Correlation of Perceived Stress Scale (PSS) items in Study II**

| <b>Item No.</b> | <b>Item</b>  | <b>Item-total correlation</b> |
|-----------------|--|-------------------------------|
| 1.              | In the last month, how often have you been upset because of something that happened unexpectedly?                                    | .37**                         |
| 2.              | In the last month, how often have you felt that you were unable to control the important things in your life?                        | .43**                         |
| 3.              | In the last month, how often have you felt nervous and "stressed"?   | .45**                         |
| 4.              | In the last month, how often have you dealt successfully with day to day problems and annoyances?                                    | .38**                         |
| 5.              | In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life? | .29**                         |
| 6.              | In the last month, how often have you felt confident about your ability to handle your personal problems?                            | .26**                         |
| 7.              | In the last month, how often have you felt that things were going your way?  | .36**                         |
| 8.              | In the last month, how often have you found that you could not cope with all the things that you had to do?                          | .44**                         |
| 9.              | In the last month, how often have you been able to control irritations in your life?   | .25**                         |

|     |  |       |
|-----|--|-------|
| 10. | In the last month, how often have you felt that you were on top of things?                                       | .35** |
| 11. | In the last month, how often have you been angered because of things that were outside your control?             | .37** |
| 12. | In the last month, how often have you found yourself thinking about things that you have to accomplish?          | .17** |
| 13. | In the last month, how often have you been able to control the way you spend your time?                          | .31** |
| 14. | In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? | .39** |

Note: \*\* $p < .01$

#### **3.3.4.5. BIG FIVE INVENTORY (BFI) (John & Srivastava, 1999)**

The Big Five Inventory (BFI) was developed by John and Srivastava (1999). It consists of forty-four items which measure five dimensions of personality (acronymed as OCEAN for Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism). All the items are scored on five-point scale ranging from “disagree strongly” to “agree strongly”. The obtained score for each personality dimension reveals the five factors of personality for a respondent. There are in total 44 items, out of which 28 items are positive and 16 items are negative (reverse scored). There are 10 items to measure Openness, 9 items to measure Conscientiousness, 9 items to measure Agreeableness, 8 items to measure Extraversion and 8 items to measure Neuroticism. In the original BFI, the reliability coefficients of the five factors of personality are 0.88, 0.79, 0.82, 0.84 and 0.81 for Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness respectively. The standardized validity coefficient from Confirmatory Factor Analysis for Big Five

Inventory is 0.92. Some of other available popular personality scales are provided in the Table 3.10. It can be seen that NEO-FFI have a greater number of items (60) than BFI, although it measures the same five dimensions of personality as BFI does, and EPQ have 101 items but measure only three dimensions of personality such as extraversion, neuroticism and psychoticism. As a result, BFI was deemed fit for use in the present study.

**Table 3.10: Some of the Available Personality Questionnaires**

| <b>Personality Scales</b>               | <b>Number of Items</b> | <b>Target group</b> | <b>Developed by</b>        |
|---|------------------------|---------------------|----------------------------|
| Big Five Inventory (BFI)                | 44                     | 16 years and above  | John and Srivastava (1999) |
| NEO Five Factor Inventory (NEO FFI)     | 60                     | 18 years and above  | Costa and McCrea (1989)    |
| Eysenck Personality Questionnaire (EPQ) | 101                    | 16 years and above  | Eysenck and Eysenck (1975) |

#### **3.3.4.7. SATISFACTION WITH LIFE SCALE (SWLS) (Diener et al., 1985)**

It was developed by Diener et al. (1985) and used to measure the cognitive component of subjective well-being. The SWLS consists of five items which measure the individual's evaluation of satisfaction with life in general. Responses range from "strongly disagree" to "strongly agree". Scores on the SWLS can be interpreted in terms of absolute as well as relative life satisfaction. A score of 20 represents the neutral point on the scale, scores between 21 and 25 represent *slightly satisfied*, and scores between 15 and 19 represent

*slightly dissatisfied* with life. Scores between 26 and 30 represent *satisfied*, and scores from 5 to 9 are indicative of being *extremely dissatisfied* with life. The SWLS has strong internal reliability and moderate temporal stability. Diener et al. (1985) reported a coefficient alpha of 0.87 for the scale and a 2-month test-retest stability coefficient of 0.82. The SWLS has been shown to be negatively correlated with clinical measures of distress. Arrindell et al. (1991) found the SWLS to be significantly negatively correlated with anxiety ( $r = -0.54$ ), depression ( $r = -0.55$ ), and general psychological distress ( $r = -0.55$ ). Such negative correlation reveals the stable construct validity of SWLS. Cronbach's alpha of SWLS used in the present study was found to be 0.53 and the item-total correlation ranged from 0.54 to 0.65 which shows that all the items of SWLS are consistent with each other.

**Table 3.11: Item-total correlation of Satisfaction with Life Scale (SWLS) items in Study II**

| Item No. | Item   | Item-total correlation |
|----------|--|------------------------|
| 1.       | In most ways my life is close to my ideal.                   | .54**                  |
| 2.       | The conditions of my life are excellent.                     | .64**                  |
| 3.       | I am satisfied with my life.                                 | .65**                  |
| 4.       | So far, I have gotten the important things I want in life.   | .55**                  |
| 5.       | If I could live my life over, I would change almost nothing. | .56**                  |

Note: \*\* $p < .01$



### 3.3.4.7. POSITIVE RELATION WITH OTHERS SCALE (PROS) (Ryff, 1989)

Positive relation with others scale has been derived from Psychological Well-Being Scale developed by Ryff (1989) and consists of fourteen items. All the items are scored on six-point format ranging from “strongly disagree” (1) to “strongly agree” (6). There are 7 positive items and 7 negative items that are reverse scored. High score indicates warm satisfying and trusting relationships with other. Low score indicates isolated and frustrated interpersonal relationships. In the original form, the internal consistency (coefficient alpha) reliability of Positive Relationship with Others Scale is 0.88 and its correlation with the 20-item parent scale is 0.98.

*Table 3.12: Some of the Available Social Relationship Scales*

| Social Relationship Scales              | Number of Items | Target group   | Developed by      |
|---|-----------------|--|-------------------|
| Positive Relationship with Others Scale | 14              | 16 years and above   | Ryff (1989)       |
| Relationship Assessment Scale           | 7               | 16 years and above<br>(For those who are into romantic relationship) | Hendrick (1988)   |
| Bergen Social Relationship Scale        | 6               | 16 years and above<br>(Measure social stress in close relationships) | Mittelmark (2016) |

Some of the available social relationship scales are outlined in Table 3.11. It can be seen that Relationship Assessment Scale (Hendrick, 1988) measures only aspects of social relationship for those who are into romantic relationship, and this limits its application on those who are not into romantic relationship. Similarly, another popular relationship scale known as Bergen Social Relationship Scale (Mittelmark, 2016) also measure social relationship but it measures those aspects of social relationship which are closely linked with clinical symptomatology as it based on items that reflect six chronic social stress constructs (i.e., helpless bystander, inept support, performance demand, role conflict, social conflict, and criticism). Considering all such limitations of the available social relationship scales, PROS (Ryff, 1989) was deemed fit for use in the present study as it measures the overall social relationship of an individual based on 14 items and gives a convenient single score of social relationship, which is easier to interpret on the basis of obtained score.

Cronbach's alpha of PROS used in the present study was found to be 0.64, indicating that it has adequate internal consistency. The item-total correlation of the PROS also showed significant and moderate positive correlation ranging from 0.31 to 0.56, indicating that all the items have good psychometric properties.

***Table 3.13: Item-total correlation of Positive Relationship with Others Scale (PROS)***

***Items in Study II***

| <b>Item No.</b> | <b>Item</b>  | <b>Item-total correlation</b> |
|-----------------|--|-------------------------------|
| 1.              | Most people see me as loving and affectionate.                             | .31**                         |
| 2.              | Maintaining close relationships has been difficult and frustrating for me. | .43**                         |

|     |   |        |
|-----|---|--------|
| 3.  | I often feel lonely because I have few close friends with whom to share my concerns.            | .40**  |
| 4.  | I enjoy personal and mutual conversations with family members or friends.                       | .46**  |
| 5.  | It is important to me to be a good listener when close friends talk to me about their problems. | .41**  |
| 6.  | I don't have many people who want to listen when I need to talk.                                | .56**  |
| 7.  | I feel like I get a lot out of my friendships.  | .34**  |
| 8.  | It seems to me that most other people have more friends than I do.                              | .42**  |
| 9.  | People would describe me as a giving person, willing to share my time with others.              | .422** |
| 10. | I have not experienced many warm and trusting relationships with others.                        | .39**  |
| 11. | I often feel like I'm on the outside looking in when it comes to friendships.                   | .43**  |
| 12. | I know that I can trust my friends, and they know they can trust me.                            | .51**  |
| 13. | I find it difficult to really open up when I talk with others.                                  | .33**  |
| 14. | My friends and I sympathize with each other's problems.   | .45**  |

Note: \*\* $p < .01$

### **3.3.5. PROCEDURE OF DATA COLLECTION**

The present study used cross-sectional study design to examine happiness across three age groups- late adolescents, young adults and elderly. Data were collected from students of Govt. Senior Secondary Schools and B.Ed. colleges, research scholars from different streams at Manipur University, and pensioners' association using random sampling. Participants were selected on the basis of minimum education of 10<sup>th</sup> standard and personal/family income for elderly, young adults and pocket money or family income for late adolescents. On an average, participants completed a set of seven paper-pencil measures in approximately 50-55 minutes. Brief instructions were given before administration and informed consent was sought from every participant before taking part in the present study and only those participants who were willing to participate were retained.

Responses for late adolescent age group were collected from two Govt. Senior Secondary schools. For this, prior permissions were sought from respective school principals and classroom teachers to acquaint the participants with the researcher and take part in the research study.

Similarly, responses for young adult age group were collected students at two B.Ed. colleges, and research scholars from different streams at Manipur University. The college principals and head of the departments at the university were informed about this study and permissions were sought before approaching the students for data collection.

For elderly age group, retired employees or pensioners were approached in small groups or individually through pensioner's associations and organizations. Significant members

of the organizations/associations such as President, Vice-President, General Secretary or other important members were formally approached and informed about the present study, following which access to all the members of the organizations/associations were granted after careful examination. Data from elderly were collected in small groups of 5 to 10 or individually.

Detailed instructions were provided to all the participants while gathering response. After the participants had finished responding, filled in research questionnaires were collected and verified properly to make sure that no items were left unanswered. If any response was found incomplete, the particular respondent was requested to fill-up and assisted further if he/she required any clarification.

All the responses were checked, scored and entered into SPSS 21 version, and statistically treated for analysis of results. Norms for interpretation of data and score range of the measurement tools used in the present study is provided in Table 3.14.

***Table 3.14: Norms for Interpretation of Data***

| <b>Sl. No.</b> | <b>Scale</b>                       | <b>Score Range</b> | <b>Interpretation</b>   |
|----------------|------------------------------------|--------------------|---|
| 1.             | Oxford Happiness Scale             | 29 to 174          | Higher score reflects greater happiness.  |
| 2.             | Subjective Happiness Scale-Revised | 8 to 56            | Higher score reflects greater happiness.  |
| 3.             | Rosenberg Self-Esteem Scale        | 0 to 30            | 0 to 15= Low self-esteem; 15 to 25 = Normal self-esteem; 25 to 30 = High self-esteem. |
| 4.             | Perceived Stress Scale             | 0 to 56            | Higher score indicates greater perceived stress.                                      |

|     |   |          |  |
|-----|---|----------|--|
| 5.  | BFI_ Openness                           | 10 to 50 | Higher score indicates higher openness.  |
| 6.  | BFI_ Conscientiousness                  | 9 to 45  | Higher score indicates higher conscientiousness.   |
| 7.  | BFI_ Extraversion                       | 8 to 40  | Higher score indicates higher extraversion.  |
| 8.  | BFI_ Agreeableness                      | 9 to 45  | Higher score indicates higher agreeableness.   |
| 9.  | BFI_ Neuroticism                        | 8 to 40  | Higher score indicates higher neuroticism.   |
| 10. | Satisfaction with Life Scale            | 5 to 35  | 20 neutral point; Score above than 20 reveals satisfaction and below 20 score reveals dissatisfaction.   |
| 12. | Positive Relationship with Others Scale | 14 to 84 | No cut off score provided.<br>High score indicates warm, satisfying relationships with others.<br><br>Low score indicates difficult interpersonal relationships. |

### 3.4. STATISTICAL ANALYSIS

Measurements give the methodology and techniques to get-together the most extreme measure of data for a given consumption of time and different assets. Once the applicable data is obtained, the analyst obliges methods to depict and condense information with the goal that outcomes are interpretable and imparted (Mendenhall & Ramey, 1973). Investigation in behavioural sciences clarifies the way of correlation amongst behavioural and its determinants. In this circumstance, it can be expressed that, these behavioural sciences try to look at the relationships between different autonomous variables and the dependent variables.

In the present review, various statistical analyses were used for testing hypotheses framed in the present study, and they are as given below:

- 1) Descriptive statistics, Mean and SD,
- 2) Pearson's product-moment correlation,
- 3) Independent sample t-test, and
- 4) Inferential statistics, ANOVA AND MANCOVA.

Mean and Standard Deviation were calculated for the two happiness scales, as well as for the five control variable scales used in the present study. Pearson's product moment correlation was used for item-total correlation for all the scales used in this study. It was also used to find out the correlation between happiness and control variables score. Relationship between happiness and socio-demographic variables was tested using Pearson's correlation. Independent sample t-test was used to compare the gender differences in happiness score among late adolescents, young adults and elderly. One-way ANOVA was employed to find if there were significant differences in happiness across the three age groups, i.e., late adolescents, young adults, and elderly. Factorial ANOVA was conducted to find the main effect of selected socio-demographic variables on happiness. Further, multivariate analysis (MANCOVA) was used to see if happiness across age groups still remains significant, after controlling self-esteem, stress, five factor personality of openness, conscientiousness, extraversion, agreeableness, neuroticism, life satisfaction and social relationship.

### **3.5. OVERVIEW**

All the variables used in the present study and its operational definition, hypotheses, standardization of the scales used in this study were explained. OHQ yielded good internal consistency ( $\alpha = 0.80$ ) in study I and it was maintained in its original form in study II. SHS showed poor reliability value ( $\alpha = 0.54$ ) in study I and as a result, four items were added in an attempt to increase its reliability value. Thus, SHS-R was used in study II which showed an improved Cronbach's alpha value of 0.83. The internal consistency of all the control variables used in the present study, were also checked. Data collected were decoded to observe the differences across age groups and across gender, which will be discussed in the next chapter.



# **CHAPTER IV**

# **CHAPTER IV**

## **RESULTS AND DISCUSSION**

### *Chapter Outline*

- 4.1. Introduction
- 4.2. Reliability of the Scales Used in the Present Study
- 4.3. Testing of Hypotheses
  - 4.3.1. Happiness across the Three Age-Groups i.e. Late Adolescents, Young Adults, and Elderly
  - 4.3.2. Relationship between Happiness and Self-Esteem, Stress, Personality Dimensions, Life Satisfaction, and Social Relationship across Three Age Groups
    - 4.3.2.1. Relationship between Happiness and Self Esteem across Late Adolescents, Young Adults and Elderly
    - 4.3.2.2. Relationship between Happiness and Stress across Late Adolescents, Young Adults and Elderly
    - 4.3.2.3. Relationship between Happiness and Personality Dimensions across Late Adolescents, Young Adults and Elderly
      - 4.3.2.3.1. Relationship between Happiness and Openness across Late Adolescents, Young Adults and Elderly
      - 4.3.2.3.2. Relationship between Happiness and Conscientiousness across Late Adolescents, Young Adults and Elderly
      - 4.3.2.3.3. Relationship between Happiness and Extraversion across Late Adolescents, Young Adults and Elderly
      - 4.3.2.3.4. Relationship between Happiness and Agreeableness across Late Adolescents, Young Adults and Elderly

- 4.3.2.3.5. Relationship between Happiness and Neuroticism across Late Adolescents, Young Adults and Elderly
- 4.3.2.4. Relationship between Happiness and Life Satisfaction across Late Adolescents, Young Adults and Elderly
- 4.3.2.5. Relationship between Happiness and Social Relationship across Late Adolescents, Young Adults and Elderly
- 4.3.3. Happiness Across Three Age Groups after Controlling Self-Esteem, Stress, Personality Dimensions, Life Satisfaction, and Social Relationship
- 4.3.4. Gender Differences of Happiness across the Three Age Groups
  - 4.3.4.1. Gender Differences of Happiness in Late Adolescents
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- 4.3.5. Relationship between Happiness and Socio-Demographic Variables across Three Age Groups
  - 4.3.5.1. Relationship between Happiness and Age
  - 4.3.5.2. Relationship between Happiness and Gender
  - 4.3.5.3. Relationship between Happiness and Religion
  - 4.3.5.4. Relationship between Happiness and Rural/Urban Location of Residence
  - 4.3.5.5. Relationship between Happiness and Marital Status
  - 4.3.5.6. Relationship between Happiness and Type of Family
  - 4.3.5.7. Relationship between Happiness and Education
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  - 4.3.5.9. Relationship between Happiness and Income

4.3.6. Main Effect of Selected Socio-Demographic Variables on Happiness across Late  
Adolescents, Young Adults and Elderly

4.5. Discussion

4.6. Overview

## CHAPTER-IV

### RESULTS AND DISCUSSION

#### 4.1. INTRODUCTION

The earlier chapter discussed the methods used in present study. This chapter will discuss in detail the analysis of results to test the various hypotheses framed in the present study, using descriptive statistics, correlational analyses, and inferential statistics. This chapter also contains the detailed discussion of the obtained results in relation to the framed hypotheses as given in the following sections.

#### 4.2. RELIABILITY OF THE SCALES USED IN THE PRESENT STUDY

This section represents the psychometric properties of the scales used in the present study, in terms of internal consistency, indicating that the scales employed are standardized and have adequate psychometric properties. Table 4.1 shows the Cronbach's alpha reliability coefficient value of Oxford Happiness Questionnaire (OHQ) and Subjective Happiness Scale (SHS) as observed in study I, based on 150 samples.

*Table 4.1: Cronbach's alpha reliability value of happiness scales used in study I*

| Sl. No. | Happiness Scales               | Number of Items | Cronbach's Alpha | Remark | Precautionary step             |
|---------|--------------------------------|-----------------|------------------|--------|--------------------------------|
| 1.      | Oxford Happiness Questionnaire | 29              | 0.80             | Good   | Maintained the original items  |
| 2.      | Subjective Happiness Scale     | 4               | 0.54             | Poor   | Addition of four similar items |

The OHQ yielded an internal consistency value of 0.80 which can be interpreted as good, and thus, it was retained in its original form to be used in the main study (study II). The SHS yielded an internal consistency value of 0.54 which can be interpreted as poor, and therefore, four similar items were added as a precautionary step to improve the internal consistency of SHS to be used in the study II.

Table 4.2 represents the Cronbach's alpha value of the happiness scales used in the present study. The OHQ, retained in its original version yielded Cronbach's alpha value of 0.77 in study II, which can be interpreted as acceptable and adequate. On the other hand, the original Subjective Happiness Scale with four items yielded Cronbach's alpha value of 0.64 in study I which can be interpreted as questionable. As a result of this, caution was made in an attempt to improve the internal consistency of Subjective Happiness Scale and as such SHS in its revised version having eight items was used in study II, after adding four more items (Item number 3, 4, 5 and 6) which yielded Cronbach's alpha reliability value of 0.83 and it could be interpreted as good and adequate reliability coefficient value. Thus, Subjective Happiness Scale in its revised version was used in the study II of the present research.

***Table 4.2: Cronbach's alpha reliability value of the happiness scales***

| <b>Sl. No.</b> | <b>HAPPINESS SCALES</b>             | <b>Number of Items</b> | <b>Cronbach's Alpha</b> |
|----------------|-------------------------------------|------------------------|-------------------------|
| 1.             | Oxford Happiness Questionnaire      | 29                     | 0.77                    |
| 2.a.           | Subjective Happiness Scale-Original | 4                      | 0.64                    |
| 2.b.           | Subjective Happiness Scale-Revised  | 8                      | 0.83                    |

Table 4.3 represents the internal consistency of all the scales used in the present study. It can be observed that two happiness scales were used to measure happiness in the main study, in addition to the use of five scales to measure self-esteem, stress, personality, life satisfaction and social relationship. Cronbach's alpha reliability value of Rosenberg Self-Esteem Scale, Perceived Stress Scale, Big Five Inventory personality dimensions of Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism, Satisfaction with Life Scale and Positive Relationship with others Scale were 0.56, 0.53, 0.41, 0.58, 0.63, 0.64, 0.55, 0.53 and 0.64 respectively.

**Table 4.3: Cronbach's alpha reliability value of scales used in study II**

| Type of Variable   | Scales used in the main study           | Number of Items | Cronbach's Alpha |
|--------------------|---|-----------------|------------------|
| Dependent Variable | Oxford Happiness Questionnaire          | 29              | 0.77             |
|                    | Subjective Happiness Scale-Revised      | 8               | 0.83             |
| Control Variable   | Rosenberg Self-Esteem Scale             | 10              | 0.56             |
|                    | Perceived Stress Scale                  | 14              | 0.53             |
|                    | Big Five Inventory: Openness            | 10              | 0.41             |
|                    | Big Five Inventory: Conscientiousness   | 9               | 0.58             |
|                    | Big Five Inventory: Extraversion        | 8               | 0.63             |
|                    | Big Five Inventory: Agreeableness       | 9               | 0.64             |
|                    | Big Five Inventory: Neuroticism         | 8               | 0.55             |
|                    | Satisfaction with Life Scale            | 5               | 0.53             |
|                    | Positive Relationship with Others Scale | 14              | 0.64             |

### 4.3. TESTING OF HYPOTHESES

In this section, hypotheses framed in the present study were tested in the following subsections after statistical analysis of results.

#### 4.3.1. HAPPINESS ACROSS THE THREE AGE-GROUPS (LATE ADOLESCENTS, YOUNG ADULTS AND ELDERLY)

Descriptive statistics (M, SD) of both the happiness measures (OHQ and SHS-R) across late adolescents, young adults and elderly were analyzed to observe the happiness score.

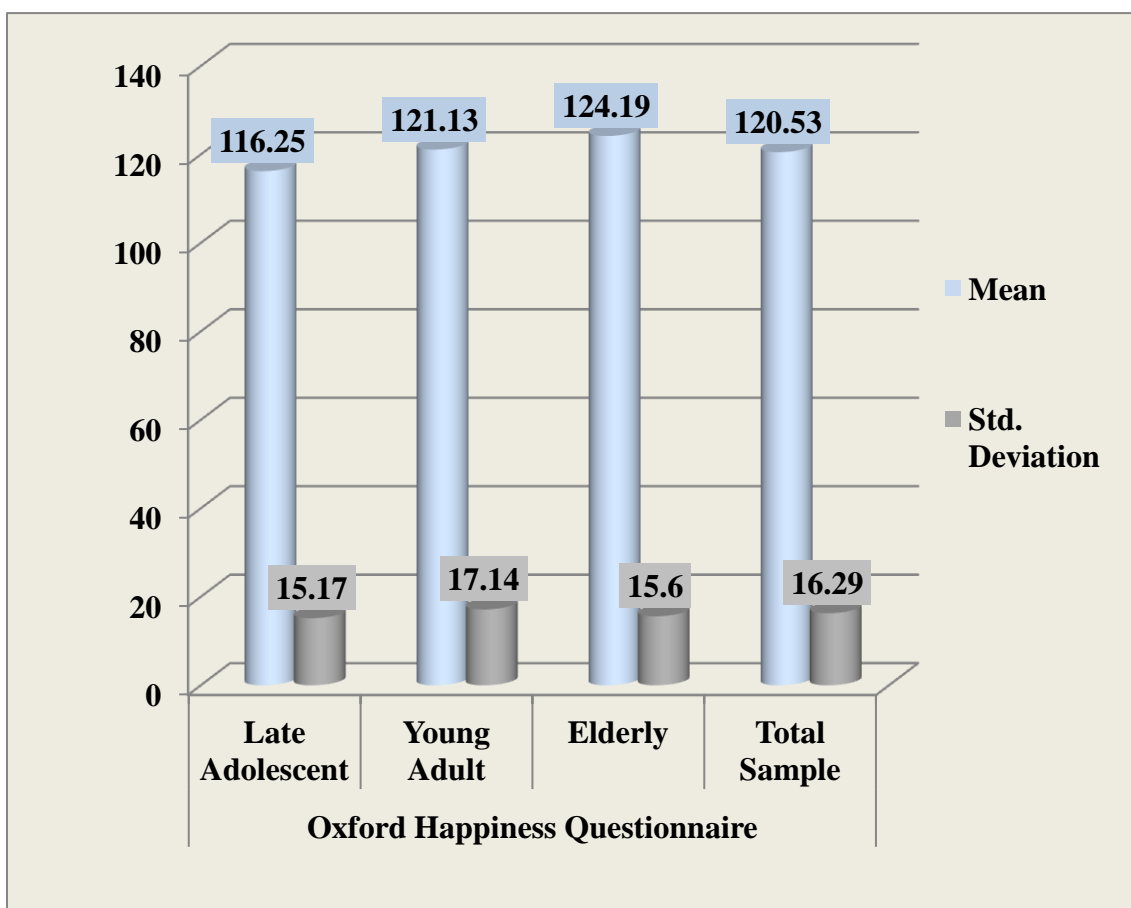


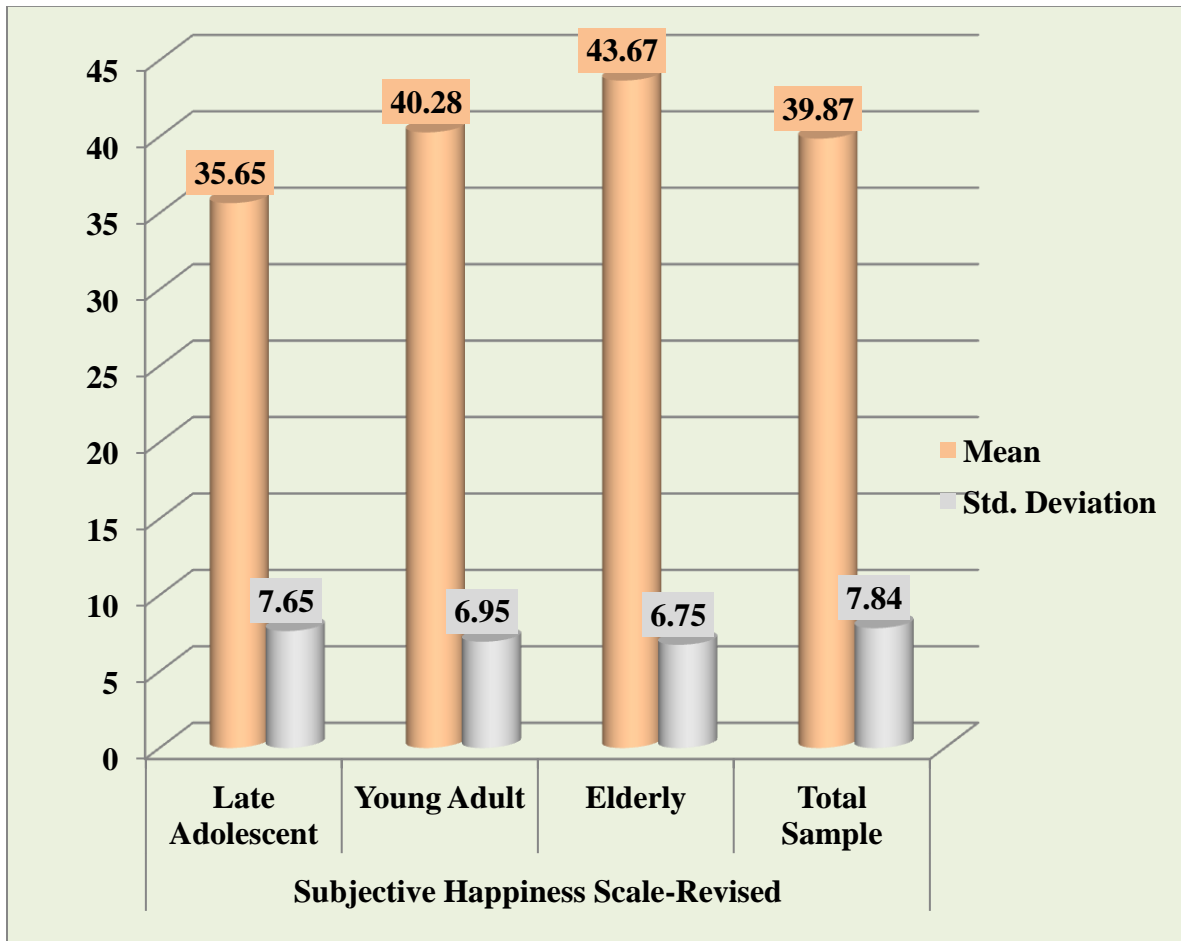
Figure 4.1: *Happiness Mean Scores of Late Adolescents, Young Adults, Elderly and total sample on Oxford Happiness Questionnaire (N=450)*

Findings of the present study revealed that mean happiness score of late adolescents, young adults and elderly on OHQ were  $M=116.25$  ( $SD=15.17$ ),  $M=121.13$  ( $SD=17.14$ )



and  $M=124.19$  ( $SD=15.60$ ) respectively, which shows an increasing trend of happiness with increase in age (Table 4.4). This indicates that elderly age group is happier than the younger age groups i.e., young adults and late adolescents. Also, young adults are happier than late adolescents age group. In other word, it can be said that older people are happier than younger people as elderly age group is happier than both young adults and late adolescents age groups. Comparison of mean happiness scores of the sample, as observed on OHQ, is graphically represented in Figure 4.1. Normality of OHQ score were checked using SPSS, as given in Graph 4.1. One-way ANOVA was conducted to examine the mean scores and it was observed that there was significant difference in happiness across the three age groups ( $F(2,447) = 9.41, p < .001, \eta^2 = .04$ ). Table 4.6 shows the post hoc analysis result using Tukey HSD which revealed that there was significant and negative mean difference between happiness scores in late adolescents and young adults ( $p < .023$ ), and between late adolescents and elderly ( $p < .001$ ), whereas the mean difference between happiness scores in young adults and elderly was not significant ( $p < .223$ ). This shows that happiness score of elderly significantly differs from late adolescents and that of between young adults and late adolescents. However, there is no significant mean difference between elderly and young adults.

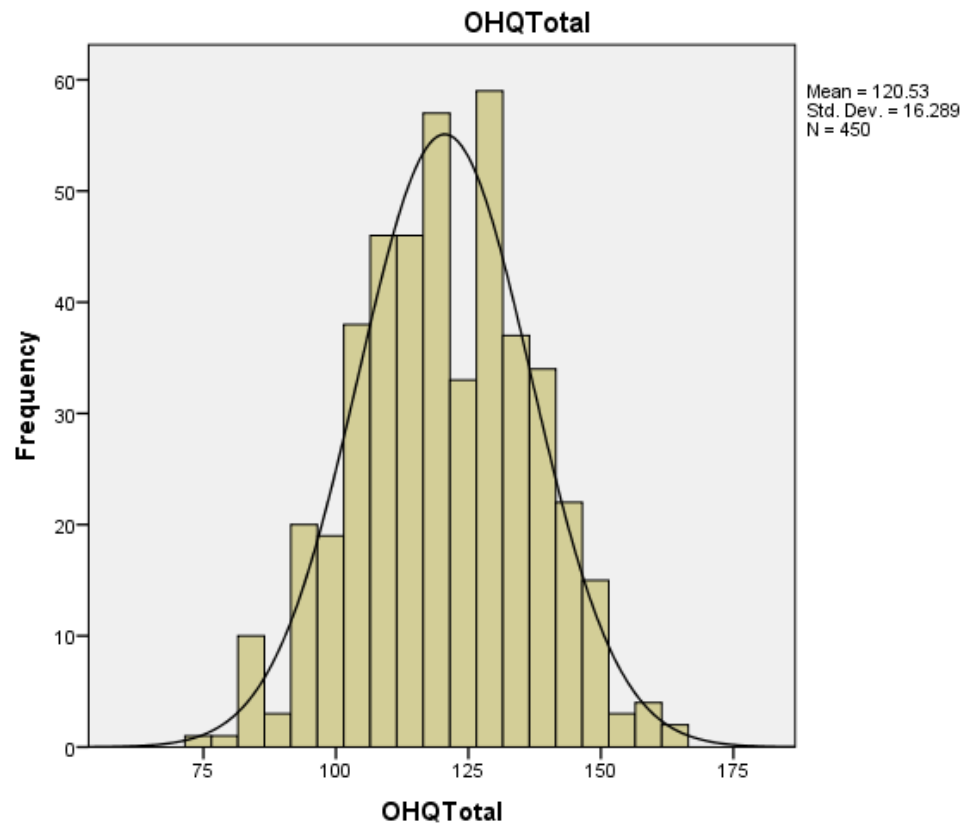
Similarly, findings from the second happiness measure of SHS-R revealed the same trend of increased happiness score across increase in age groups with mean happiness score of  $M=35.65$  ( $SD=7.65$ ),  $M=40.28$  ( $SD=6.95$ ) and  $M=43.67$  ( $SD=6.75$ ) for late adolescents, young adults and elderly age groups respectively, which is graphically represented in Figure 4.2.



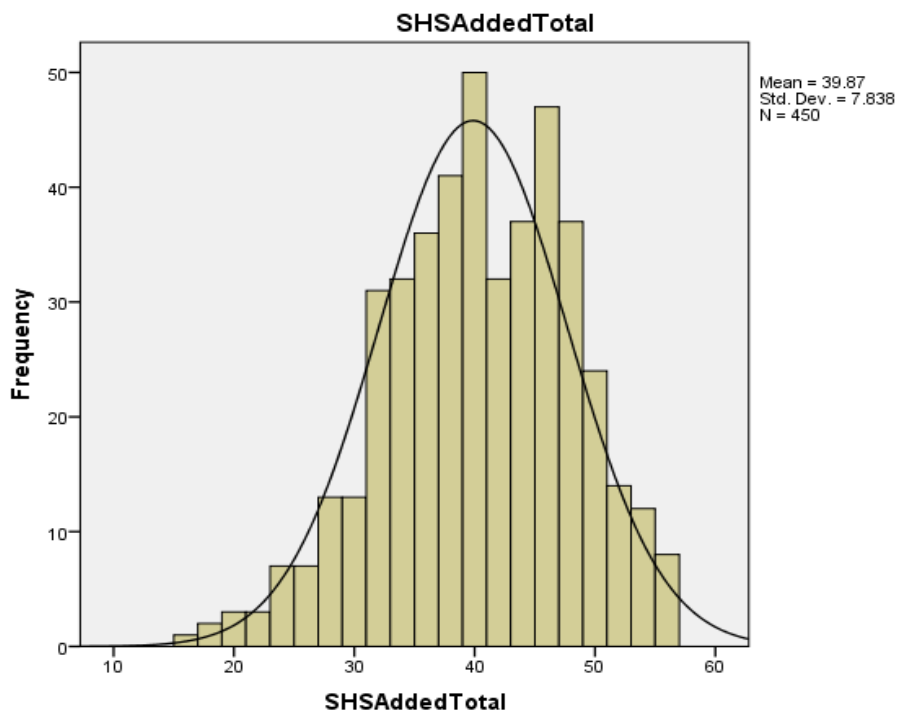
**Figure 4.2:** *Happiness Mean Scores of Late Adolescents, Young Adults, Elderly and total sample on Subjective Happiness Scale-Revised (N=450)*

Normality of SHS-R score were checked using SPSS, which is provided in Graph 4.2. A one-way ANOVA was conducted and the results revealed significant difference in happiness across the three age groups with medium effect size ( $F(2,447) = 47.92, p < .001, \eta^2 = .17$ ). Post hoc analysis using Tukey HSD shows that there is significant and negative mean difference between late adolescents and young adults ( $p < .001$ ), between young adults and elderly ( $p < .001$ ), and between late adolescents and elderly ( $p < .001$ ). The significant negative mean difference reflects that the elderly age group has the highest mean happiness score among the three age groups.

Based on correlational analysis presented in Table 4.5, it can be observed that OHQ score and age had significant positive association ( $r=.18, p<.01$ ), which means that with increase in age, happiness will also increase. Likewise, there was significant positive association between SHS-R score and age ( $r=.39, p<.01$ ).



**Graph 4.1:** *Frequency distribution and normality of data on Oxford Happiness Questionnaire*



**Graph 4.2:** *Frequency distribution and normality of data on Subjective Happiness Scale-Revised*

All these findings are evident that there is a significant difference in the happiness scores on both measures of happiness (OHQ & SHS-R), across the three age groups. Elderly age group reported greater happiness than late adolescents and young adults age groups, and younger adults were found to be happier than late adolescents. This confirms that older people are happier than young people, which can be interpreted as elderly age group is happier than both late adolescents and young adults age group. Thus, hypothesis 1 stated as **‘There will be significant difference in happiness across late adolescents, young adults and elderly’** is accepted and this supports the linear relationship between age and happiness. This can also be interpreted as older people (elderly) are happier than younger people (young adults and late adolescents) which answered the main research question of the present study.

**Table 4.4: Descriptive statistics (M and SD) and F values of happiness and control variables for the three age groups**

| <b>Variables</b>                           | <b>Late Adolescents<br/>N=150<br/>M (SD)</b> | <b>Young Adults<br/>N=150<br/>M (SD)</b> | <b>Elderly<br/>N=150<br/>M (SD)</b> | <b>One-way<br/>ANOVA<br/>(F)</b> | <b>p-value</b> | <b><math>\eta^2</math></b> |
|--|--|--|-------------------------------------|----------------------------------|----------------|----------------------------|
| <i>Happiness</i>                           |  |  |                                     |                                  |                |                            |
| Oxford Happiness Questionnaire (OHQ)       | 116.25 (15.17)                               | 121.13 (17.14)                           | 124.19 (15.60)                      | $F_{2,447}=9.41^{***}$           | .000           | 0.04                       |
| Subjective Happiness Scale-Revised (SHS-R) | 35.65 (7.65)                                 | 40.28 (6.95)                             | 43.67 (6.75)                        | $F_{2,447}=47.92^{***}$          | .000           | 0.17                       |
| <i>Control Variables</i>                   |  |  |                                     |                                  |                |                            |
| Self-Esteem (RSES)                         | 17.35 (3.62)                                 | 17.65 (3.50)                             | 18.31 (3.22)                        | $F_{2,447}=3.09^{**}$            | .047           | 0.01                       |
| Stress (PSS)                               | 27.86 (4.97)                                 | 26.80 (5.43)                             | 25.39 (5.41)                        | $F_{2,447}=8.25^{***}$           | .000           | 0.04                       |
| Openness (BFI-O)                           | 33.93 (4.33)                                 | 33.27 (4.40)                             | 33.91 (4.43)                        | $F_{2,447}=1.07^{ns}$            | .338           | 0.00                       |
| Conscientiousness (BFI-C)                  | 29.67 (4.63)                                 | 29.99 (4.45)                             | 31.66 (5.96)                        | $F_{2,447}=6.73^{***}$           | .001           | 0.03                       |
| Extraversion (BFI-E)                       | 33.63 (5.02)                                 | 31.79 (5.71)                             | 33.89 (5.52)                        | $F_{2,447}=6.66^{***}$           | .001           | 0.03                       |
| Agreeableness (BFI-A)                      | 25.33 (3.39)                                 | 25.10 (4.25)                             | 26.98 (3.62)                        | $F_{2,447}=11.07^{***}$          | .000           | 0.05                       |
| Neuroticism (BFI-N)                        | 24.05 (3.96)                                 | 23.71 (4.67)                             | 22.24 (4.26)                        | $F_{2,447}=7.46^{***}$           | .001           | 0.03                       |
| Life satisfaction (SWLS)                   | 21.68 (4.55)                                 | 22.89 (4.92)                             | 24.09 (4.77)                        | $F_{2,447}=9.67^{***}$           | .000           | 0.04                       |
| Social relationship (PROS)                 | 55.57 (6.95)                                 | 57.20 (10.00)                            | 59.19 (9.24)                        | $F_{2,447}=6.35^{***}$           | .002           | 0.03                       |

$N=450$ ; *ns* = non-significant;  $**p < 0.01$ ;  $***p < 0.001$

MACNOVA was performed for happiness using control variables as covariates to test the significant differences between three age groups. The overall Wilks's lambda for each MANCOVA was significant,  $p < 0.001$ . Eta-squared ( $\eta^2$ ) = effect size measure.

*Table 4.5: Pearson's product moment correlation between happiness score and control variables score*

| Scale        | Mean   | SD    | OHQ    | SHS-R  | RSES   | PSS    | BFIO   | BFIC   | BFIE   | BFIA   | BFIN   | SWLS  | PROS |
|--------------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|------|
| <b>OHQ</b>   | 120.53 | 16.29 | 1      |        |        |        |        |        |        |        |        |       |      |
| <b>SHS-R</b> | 39.87  | 7.84  | .45**  | 1      |        |        |        |        |        |        |        |       |      |
| <b>RSES</b>  | 17.77  | 3.47  | .40**  | .27**  | 1      |        |        |        |        |        |        |       |      |
| <b>PSS</b>   | 26.68  | 5.36  | -.34** | -.21** | -.32** | 1      |        |        |        |        |        |       |      |
| <b>BFIO</b>  | 33.70  | 4.39  | .30**  | .12**  | -.06   | .22**  | 1      |        |        |        |        |       |      |
| <b>BFIC</b>  | 30.44  | 5.12  | .39**  | .16**  | -.35** | .33**  | .31**  | 1      |        |        |        |       |      |
| <b>BFIE</b>  | 33.10  | 5.49  | .39**  | .10*   | -.16** | .32**  | .29**  | .56**  | 1      |        |        |       |      |
| <b>BFIA</b>  | 25.80  | 3.86  | .29**  | .23**  | -.26** | .25**  | .20**  | .28**  | .22**  | 1      |        |       |      |
| <b>BFIN</b>  | 23.33  | 4.37  | -.43** | -.17** | .37**  | -.37** | -.13** | -.49** | -.36** | -.24** | 1      |       |      |
| <b>SWLS</b>  | 22.89  | 4.84  | .43**  | .30**  | -.26** | .27**  | .07    | .21**  | .09    | .18**  | -.29** | 1     |      |
| <b>PROS</b>  | 57.32  | 8.93  | .48**  | .27**  | -.30** | .37**  | .22**  | .37**  | .47**  | .31**  | -.30** | .25** | 1    |

N=450; \*\*p<.01; \*p<.05

OHQ=Oxford Happiness Questionnaire, SHSR=Subjective Happiness Scale Revised, OTHSP= Orientation to Happiness Scale-Pleasure, OTHSM= Orientation to Happiness Scale-Meaning, OTHSE= Orientation to Happiness Scale-Engagement, PSS=Perceived Stress Scale; SDS=Social Desirability Scale, RSES=Rosenberg Self-Esteem Scale, BFIO=Big Five Inventory Openness, BFIC=Big Five Inventory Conscientiousness, BFIA=Big Five Inventory Agreeableness, BFIE=Big Five Inventory Extraversion, BFIN=Big Five Inventory Neuroticism, SWLS=Satisfaction with Life Scale, PROS=Positive Relation with Others Scale

**Table 4.6: Post hoc analysis of happiness scores among late adolescents, young adults and elderly**

| <b>Multiple Comparisons</b> |                      |                      |                              |                   |             |                                |                    |
|-----------------------------|----------------------|----------------------|------------------------------|-------------------|-------------|--------------------------------|--------------------|
| Tukey HSD                   |                      |                      |                              |                   |             |                                |                    |
| <i>Dependent Variable</i>   | <i>(I) Age Group</i> | <i>(J) Age Group</i> | <i>Mean Difference (I-J)</i> | <i>Std. Error</i> | <i>Sig.</i> | <i>95% Confidence Interval</i> |                    |
|                             |                      |                      |                              |                   |             | <i>Lower Bound</i>             | <i>Upper Bound</i> |
| OHQ                         | Late Adolescent      | Young Adults         | -4.88*                       | 1.84              | .023        | -9.22                          | -.54               |
|                             |                      | Elderly              | -7.94*                       | 1.84              | .000        | -12.28                         | -3.60              |
|                             | Young Adults         | Late Adolescents     | 4.88*                        | 1.84              | .023        | .54                            | 9.22               |
|                             |                      | Elderly              | -3.06                        | 1.84              | .223        | -7.40                          | 1.28               |
|                             | Elderly              | Late Adolescents     | 7.94*                        | 1.84              | .000        | 3.60                           | 12.28              |
|                             |                      | Young Adults         | 3.06                         | 1.84              | .223        | -1.28                          | 7.40               |
| SHS-R                       | Late Adolescents     | Young Adults         | -4.63*                       | .82               | .000        | -6.57                          | -2.70              |
|                             |                      | Elderly              | -8.03*                       | .82               | .000        | -9.96                          | -6.09              |
|                             | Young Adults         | Late Adolescents     | 4.63*                        | .82               | .000        | 2.70                           | 6.57               |
|                             |                      | Elderly              | -3.39*                       | .82               | .000        | -5.33                          | -1.46              |
|                             | Elderly              | Late Adolescents     | 8.03*                        | .82               | .000        | 6.09                           | 9.96               |
|                             |                      | Young Adults         | 3.39*                        | .82               | .000        | 1.46                           | 5.33               |

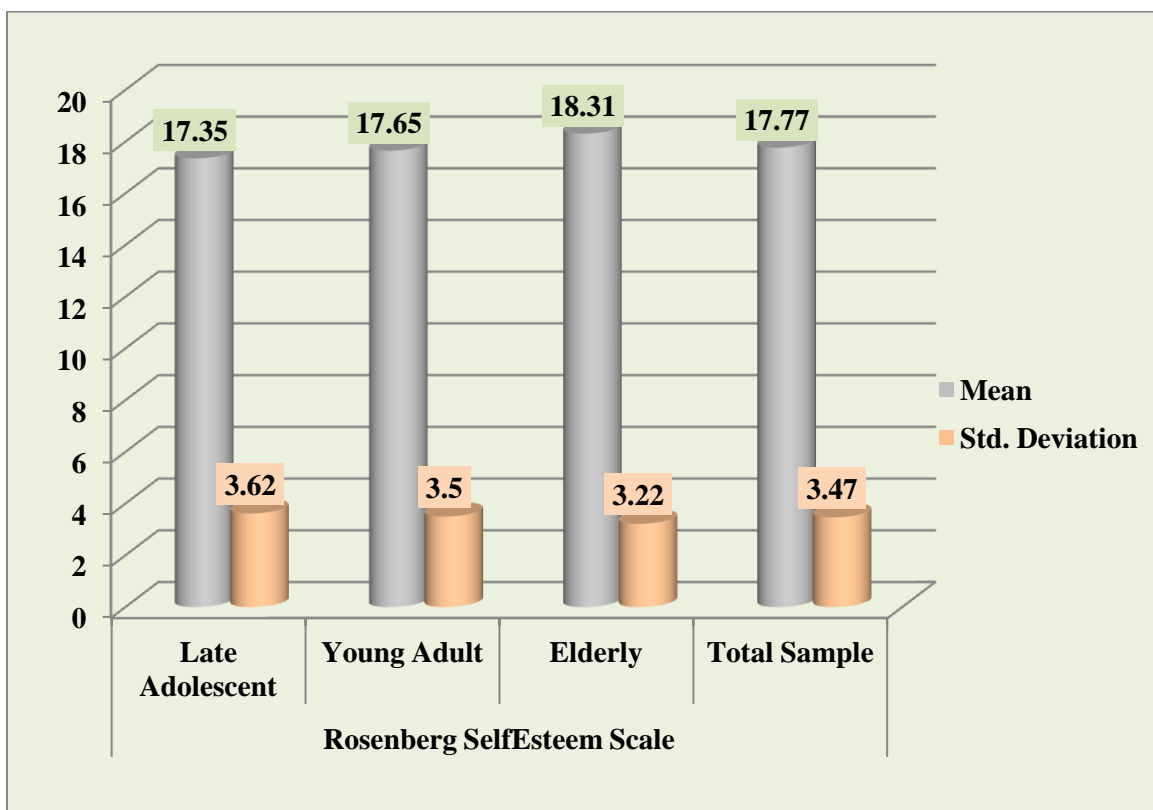
\* The mean difference is significant at the 0.05 level.

#### **4.3.2. RELATIONSHIP BETWEEN HAPPINESS AND SELF-ESTEEM, STRESS, PERSONALITY DIMENSIONS, LIFE SATISFACTION, AND SOCIAL RELATIONSHIP ACROSS THREE AGE GROUPS**

In this section, the relationship between happiness and psychosocial variables, which are employed as control variables in the present study, was examined.

#### 4.3.2.1. RELATIONSHIP BETWEEN HAPPINESS AND SELF-ESTEEM ACROSS LATE ADOLESCENTS, YOUNG ADULTS AND ELDERLY

The obtained results as given in Table 4.4 reveals that the mean self-esteem score of late adolescents, young adults and elderly age groups were  $M=17.35$  ( $SD=3.62$ ),  $M=17.65$  ( $SD=3.50$ ) and  $M=18.31$  ( $SD=3.22$ ) respectively. This shows a tendency of increase in self-esteem with increase in age as elderly age group reported highest self-esteem score among the three age groups, and young adults obtained greater self-esteem score than the late adolescents age group. It can also be observed from Table 4.5 that the mean self-esteem score of the sample was  $M=17.77$  ( $SD=3.46$ ). Figure 4.3 represents the obtained self-esteem score of the overall sample, including the three age groups.



**Figure 4.3:** *Self-esteem Mean Scores across Late Adolescents, Young Adults, Elderly and total sample (N=450)*

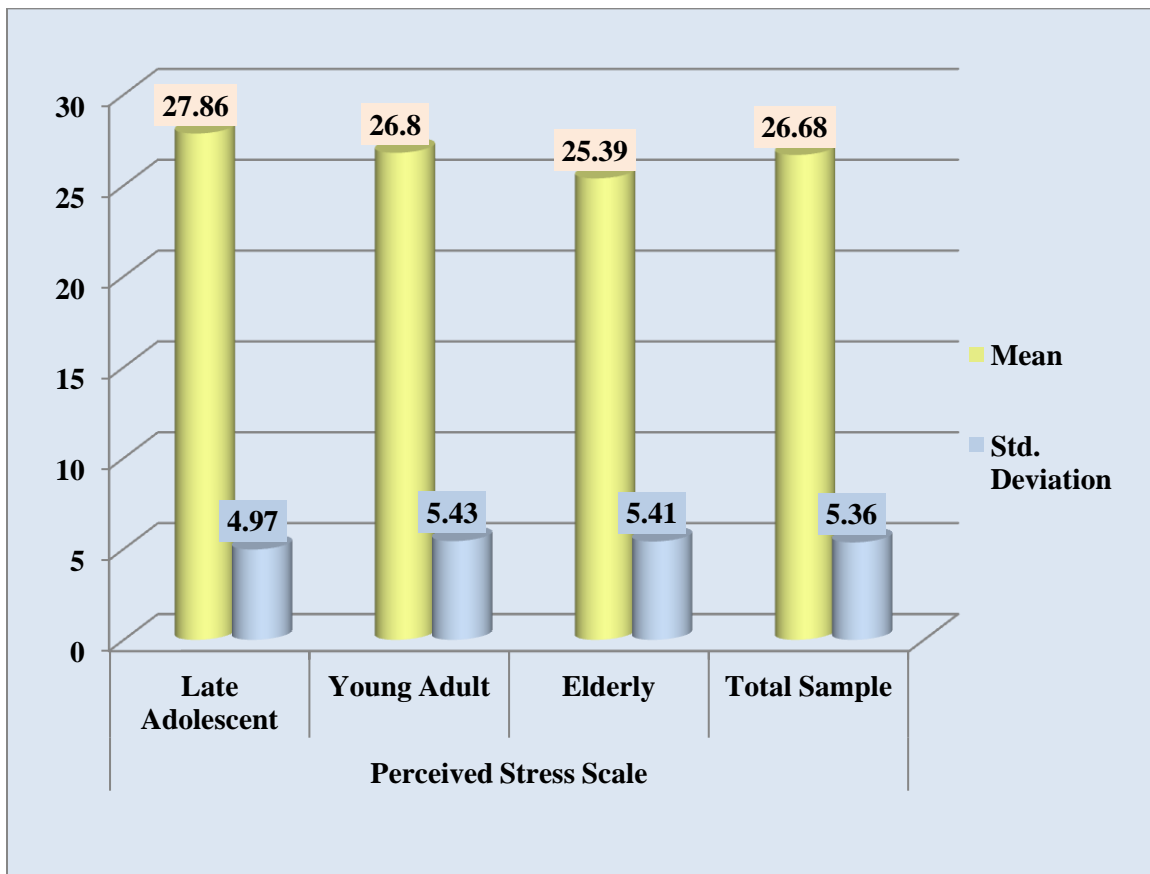


Correlational analysis using Pearson's product moment correlation showed that the correlation between the self-esteem score and the happiness scores on OHQ and SHS-R is significantly positive with moderate value of  $r=.40$ ,  $p<.01$  and  $r=.27$ ,  $p<.01$  respectively. This indicates that self-esteem and happiness are positively correlated; implying that an increase in self-esteem would also mean an increase in happiness. Thus, it can be said that the present finding is in support of hypothesis 2 stating '**Happiness will be positively related with self-esteem across late adolescents, young adults and elderly**'. Hence, hypothesis 2 is accepted, confirming of a positive association between happiness and self-esteem.

#### **4.3.2.2. RELATIONSHIP BETWEEN HAPPINESS AND STRESS ACROSS LATE ADOLESCENTS, YOUNG ADULTS AND ELDERLY**

The obtained results as given in Table 4.4 shows that the mean stress score of late adolescents, young adults and elderly age groups were  $M=27.86$  ( $SD=4.97$ ),  $M=26.80$  ( $SD=5.43$ ) and  $M=25.39$  ( $SD=5.41$ ) respectively. This shows a trend of decrease in stress across increase in age as elderly age group reported lowest stress score among the three age groups, and young adults obtained lower stress score than the late adolescents age group. Additionally, it can be observed from Table 4.5 that the mean stress score of the sample was  $M=26.68$  ( $SD=5.36$ ). Figure 4.4 represents the obtained stress score of the sample, and the three age groups. Pearson's product moment correlation showed that the correlation between stress score (measured on PSS) and the happiness scores on OHQ and SHS-R is significantly negative with moderate value of  $r= -.34$ ,  $p<.01$  and  $r= -.21$ ,  $p<.01$  respectively. This confirms that stress and happiness are negatively correlated, suggesting that increase in stress would be related to decrease in happiness. Thus, it can

be said that the present finding is in line with hypothesis 3 stating ‘**Happiness will be negatively related with stress across late adolescents, young adults and elderly**’. Hence, hypothesis 3 is accepted, thereby indicating of negative association between happiness and stress.



**Figure 4.4:** *Perceived Stress Mean Scores across Late Adolescents, Young Adults, Elderly and total sample (N=450)*

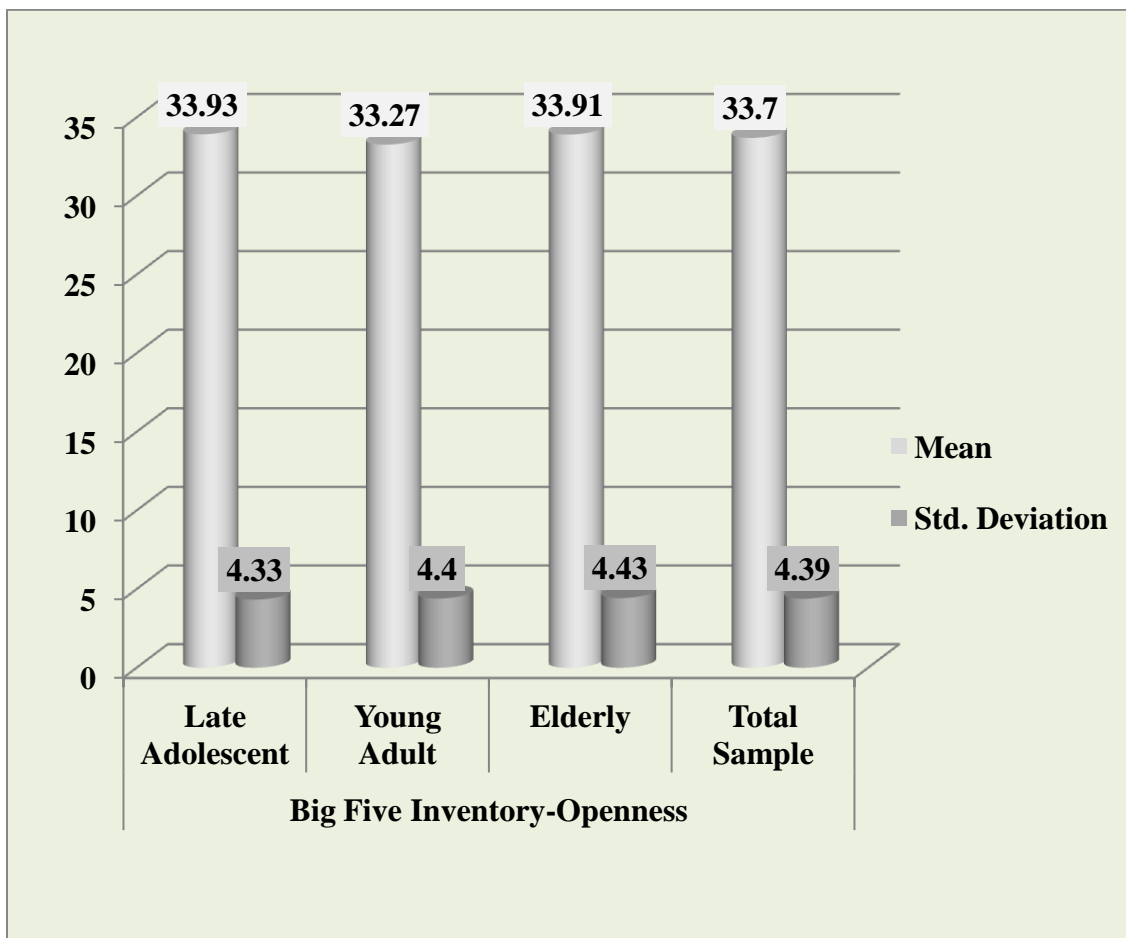
#### **4.3.2.3. RELATIONSHIP BETWEEN HAPPINESS AND PERSONALITY DIMENSIONS ACROSS LATE ADOLESCENTS, YOUNG ADULTS AND ELDERLY**

The Big Five model of personality is one of the most popular models of personality in psychological research. According to Big Five model of personality, the human personality consists of five factors: Openness to experience, Conscientiousness, Extroversion, Agreeableness, and Neuroticism (Goldberg, 1981; Digman, 1990; Carver et al., 2013). Hypotheses 4 would be tested in five sub-sections accordingly for openness, conscientiousness, extraversion, agreeableness, and neuroticism.

##### **4.3.2.3.1. RELATIONSHIP BETWEEN HAPPINESS AND OPENNESS ACROSS LATE ADOLESCENTS, YOUNG ADULTS AND ELDERLY**

The obtained results as given in Table 4.4 shows that the mean score of openness to experience of late adolescents, young adults and elderly age groups were  $M=33.93$  ( $SD=4.33$ ),  $M=33.27$  ( $SD=4.40$ ) and  $M=33.91$  ( $SD=4.43$ ), respectively. These results indicate that late adolescent age group reported highest openness to experience score among the three age groups, and young adults obtained lower openness to experience score in comparison to both late adolescents and elderly age group. From Table 4.5, it can be observed that the mean openness to experience score of the sample was 33.70 ( $SD=4.39$ ). Figure 4.5 represents the obtained openness to experience score of the sample and the three age groups. Pearson's product moment correlation showed that the correlation between openness to experience score (measured on Big Five Inventory-Openness scale) and the happiness scores on OHQ and SHS-R is significantly positive

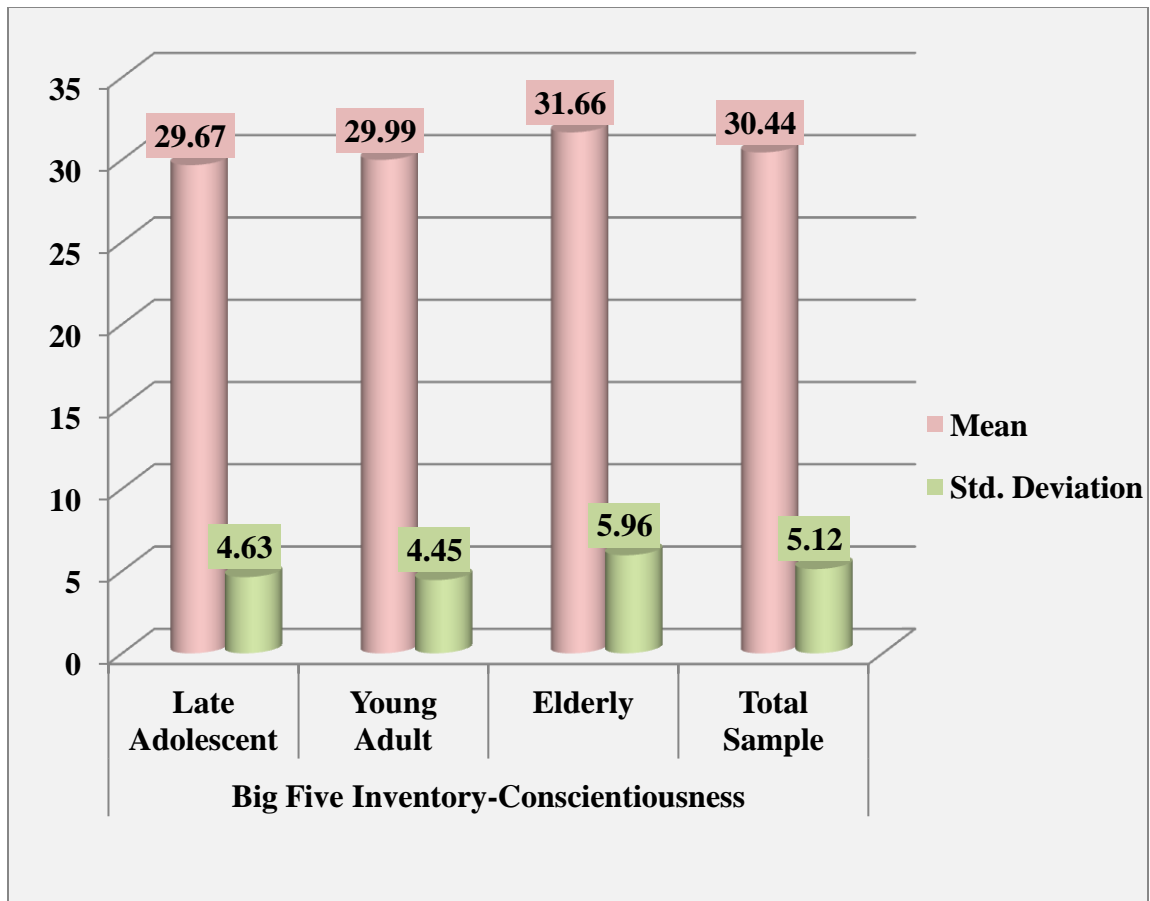
with moderate value of  $r = .30$ ,  $p < .01$  and  $r = .12$ ,  $p < .01$  respectively. This reveals that openness to experience and happiness are positively correlated, suggesting that increase in openness would also mean an increase in happiness. Thus, it can be said that the present finding is in line with hypothesis 4 stating **‘Happiness will be positively related with openness across late adolescents, young adults and elderly’**. Hence, hypothesis 4 is accepted, confirming of positive association between happiness and openness to experience.



**Figure 4.5:** *Openness to experience Mean Scores across Late Adolescents, Young Adults, Elderly and total sample (N=450)*

#### **4.3.2.3.2. RELATIONSHIP BETWEEN HAPPINESS AND CONSCIENTIOUSNESS ACROSS LATE ADOLESCENTS, YOUNG ADULTS AND ELDERLY**

The obtained results in Table 4.4 shows that the mean conscientiousness score of late adolescents, young adults and elderly age groups were  $M=29.67$  ( $SD=4.63$ ),  $M=29.99$  ( $SD=4.45$ ) and  $M=31.66$  ( $SD=5.96$ ) respectively. This shows a trend of increase in conscientiousness score across age groups as elderly age group reported highest conscientiousness score among the three age groups, and young adults obtained higher conscientiousness score than late adolescents age group. It can be observed from Table 4.5 that the mean conscientiousness score of the sample was  $M=30.44$  ( $SD=5.11$ ). Figure 4.6 represents the obtained conscientiousness score of the sample and the three age groups.



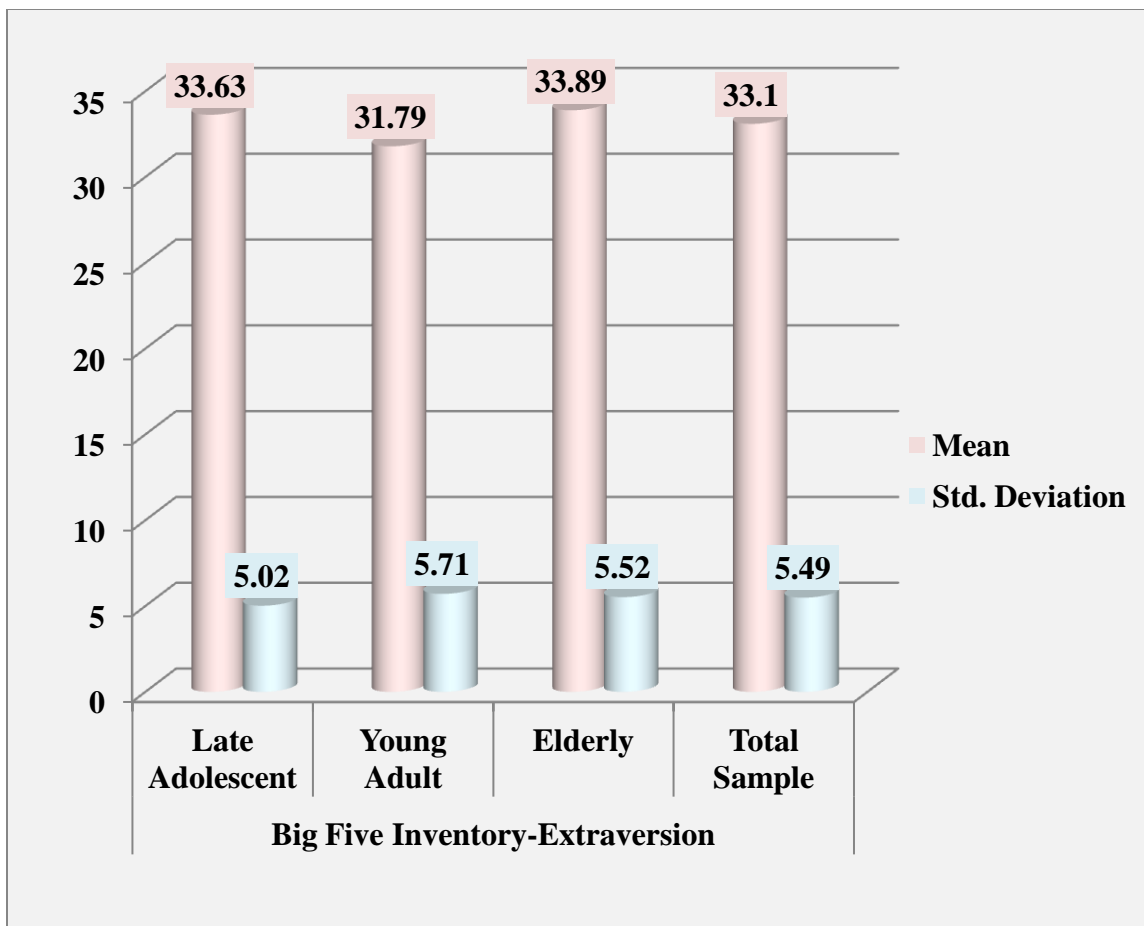
**Figure 4.6:** *Conscientiousness Mean Scores across Late Adolescents, Young Adults, Elderly and total sample (N=450)*

Pearson's product moment correlation showed that the correlation between conscientiousness score (measured on Big Five Inventory- Conscientiousness scale) and the happiness scores on OHQ and SHS-R is significantly positive with correlation value of  $r = .39, p < .01$  and  $r = .16, p < .01$ , respectively. This is evident of conscientiousness and happiness being positively correlated; indicating that increase in conscientiousness would also mean an increase in happiness level across three groups. Thus, it can be said that the present finding is in line with hypothesis 4 stating '**Happiness will be positively related with conscientiousness across late adolescents, young adults and elderly**'. Hence,

hypothesis 4 is accepted, confirming of positive association between happiness and conscientiousness across late adolescents, young adults and elderly.

#### **4.3.2.3.3. RELATIONSHIP BETWEEN HAPPINESS AND EXTRAVERSION ACROSS LATE ADOLESCENTS, YOUNG ADULTS AND ELDERLY**

The obtained results in Table 4.4 shows that the mean extraversion score of late adolescents, young adults and elderly age groups were  $M=33.63$  ( $SD=5.02$ ),  $M=31.79$  ( $SD=5.71$ ) and  $M=33.89$  ( $SD=5.52$ ), respectively. This shows that elderly age group reported highest score on extraversion among the three age groups, although late adolescents obtained higher extraversion score than young adults. It can be observed from Table 4.5 that the mean extraversion score of the sample was  $M=33.10$  ( $SD=5.49$ ). Figure 4.7 represents the obtained extraversion score of the sample, and the three age groups. Pearson's product moment correlation showed that the correlation between extraversion (measured on Big Five Inventory - Extraversion) and the happiness scores on OHQ and SHS-R is significant and positive with  $r= .39$ ,  $p<.01$  and  $r= .10$ ,  $p<.01$ , respectively.



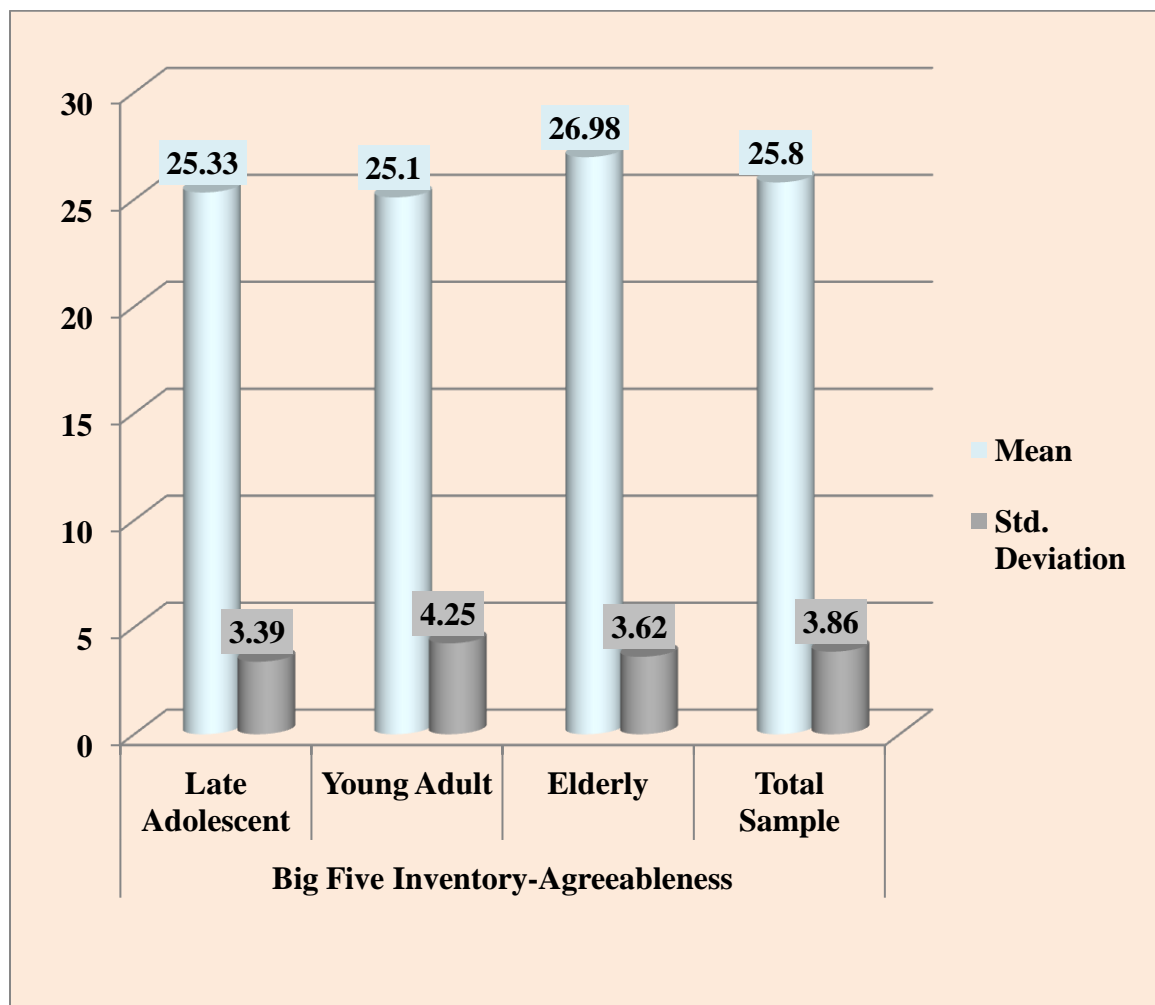
**Figure 4.7:** *Extraversion Mean Scores across Late Adolescents, Young Adults, Elderly and total sample (N=450)*

The results therefore indicate that extraversion and happiness are positively correlated, indicating that higher extraversion would be related to higher happiness. Thus, it can be said that this finding is in line with hypothesis 4 stating **‘Happiness will be positively related with extraversion across late adolescents, young adults and elderly’**. Hence, hypothesis 4 is accepted, confirming of positive association between happiness and extraversion.



#### 4.3.2.3.4. RELATIONSHIP BETWEEN HAPPINESS AND AGREEABLENESS ACROSS LATE ADOLESCENTS, YOUNG ADULTS AND ELDERLY

The obtained results in Table 4.4 shows that the mean agreeableness score of late adolescents, young adults and elderly age groups were  $M=25.33$  ( $SD=3.39$ ),  $M=25.10$  ( $SD=4.25$ ) and  $M=26.98$  ( $SD=3.62$ ), respectively. This shows a trend of increase in agreeableness across age groups as elderly age group reported highest agreeableness score among the three age groups, and young adults obtained higher agreeableness score than late adolescents age group.

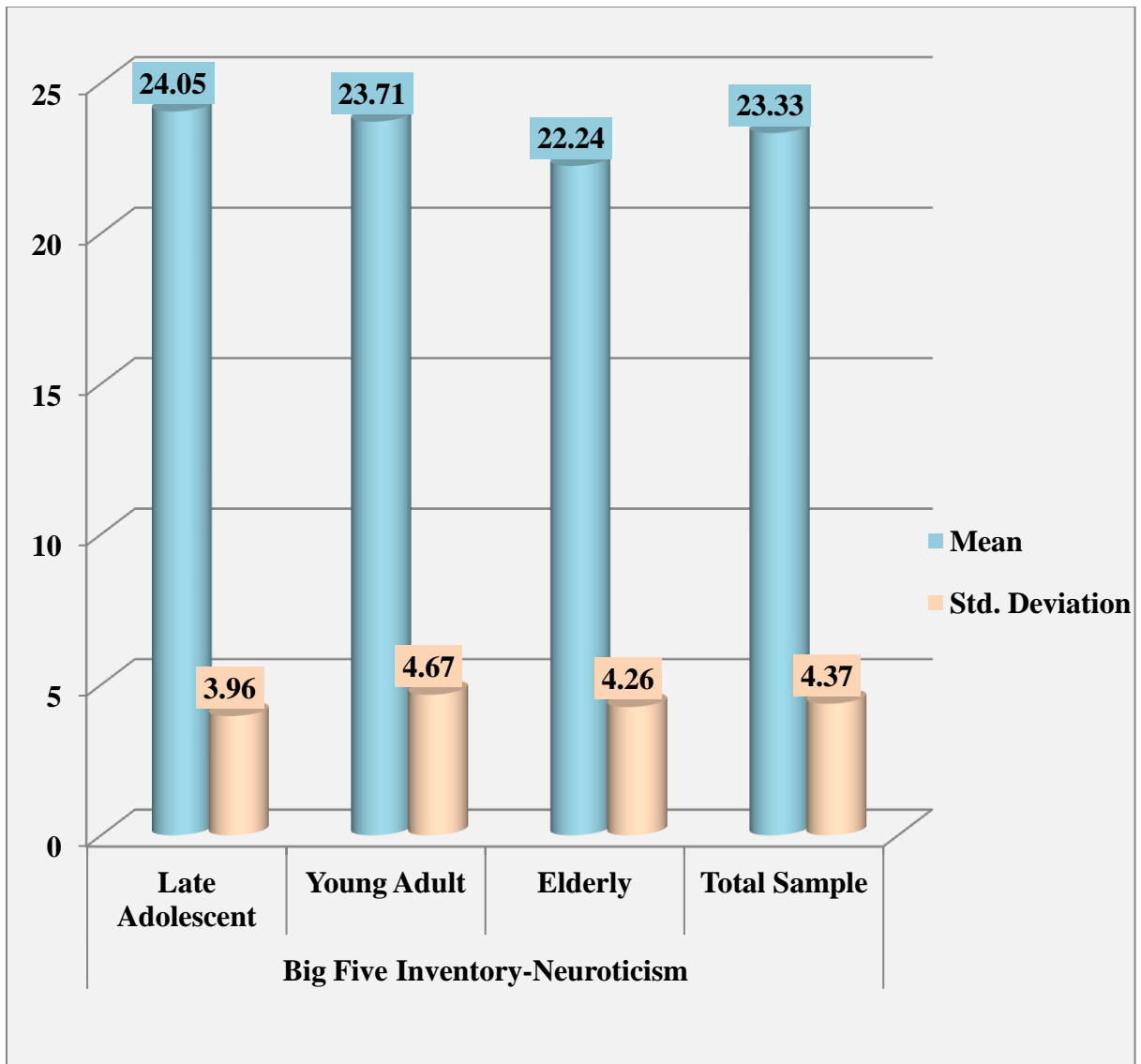


**Figure 4.8:** Agreeableness Mean Scores across Late Adolescents, Young Adults, Elderly and total sample ( $N=450$ )

Additionally, it can be observed from Table 4.5 that the mean agreeableness score of the sample was  $M=25.80$  ( $SD=3.85$ ). Figure 4.8 represents the obtained agreeableness score of the sample and the three age groups. Pearson's product moment correlation showed that the correlation between agreeableness (measured on Big Five Inventory-Agreeableness scale) and happiness scores on OHQ and SHS-R is significant and positive with correlation value of  $r= .29$ ,  $p<.01$  and  $r= .23$ ,  $p<.01$ , respectively. This reveals that agreeableness and happiness are positively correlated, suggesting that increase in agreeableness would also increase happiness. Thus, it can be said that the present finding is in line with hypothesis 4 stating '**Happiness will be positively related with agreeableness across late adolescents, young adults and elderly**'. Hence, hypothesis 4 is accepted, confirming a positive association between happiness and agreeableness.

#### **4.3.2.3.5. RELATIONSHIP BETWEEN HAPPINESS AND NEUROTICISM ACROSS LATE ADOLESCENTS, YOUNG ADULTS AND ELDERLY**

The obtained results in Table 4.4 shows that the mean neuroticism score of late adolescents, young adults and elderly age groups were  $M=24.05$  ( $SD=3.96$ ),  $M=23.71$  ( $SD=4.67$ ) and  $M=22.24$  ( $SD=4.26$ ), respectively. This shows a trend of decrease in neuroticism across age groups as elderly reported lowest neuroticism score among the three age groups, and young adults obtained lower neuroticism score than the late adolescents age group. It can also be observed from Table 4.5 that the mean neuroticism score of the sample was  $M=23.33$  ( $SD=4.37$ ). Figure 4.9 represents the neuroticism score of the sample and the three age groups.



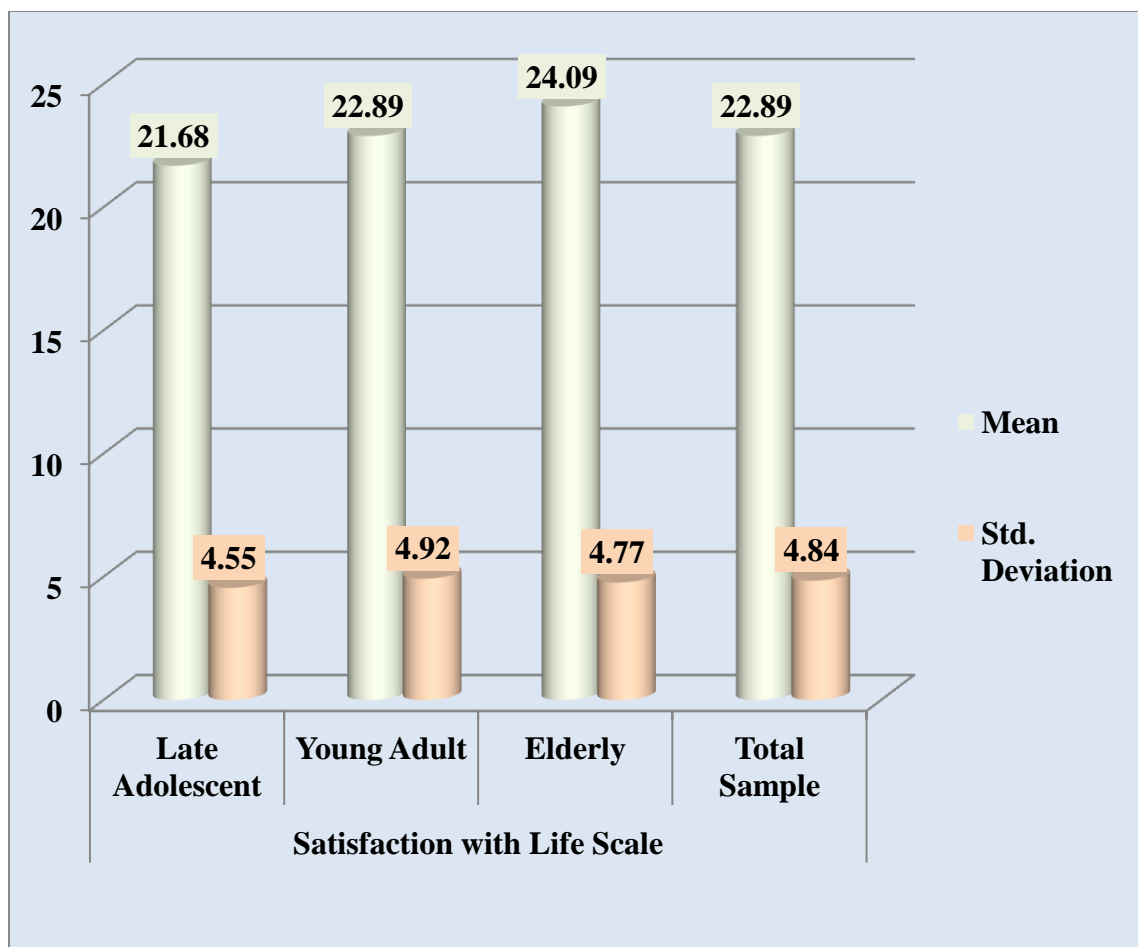
**Figure 4.9:** *Neuroticism Mean Scores across Late Adolescents, Young Adults, Elderly and total sample (N=450)*

Pearson's product moment correlation showed that the correlation between neuroticism (measured on Big Five Inventory- Neuroticism) and the happiness scores on OHQ and SHS-R is significantly negative with correlation value of  $r = -.43$ ,  $p < .01$  and  $r = -.17$ ,  $p < .01$ , respectively. This confirms that neuroticism and happiness are negatively correlated, which means that an increase in neuroticism would be related to decrease in

happiness. Thus, it can be said that the present finding is in line with hypothesis 4 stating **‘Happiness will be negatively related with neuroticism across late adolescents, young adults and elderly’**. Hence, hypothesis 4 is accepted, indicating of a negative association between happiness and neuroticism.

#### **4.3.2.4. RELATIONSHIP BETWEEN HAPPINESS AND LIFE SATISFACTION ACROSS LATE ADOLESCENTS, YOUNG ADULTS AND ELDERLY**

The obtained results in Table 4.4 reveals that the mean life satisfaction score of late adolescents, young adults and elderly age groups were  $M=21.68$  ( $SD=4.55$ ),  $M=22.89$  ( $SD=4.92$ ) and  $M=24.09$  ( $SD=4.77$ ), respectively. This shows that life satisfaction scores tend to increase with increase in age, as elderly age group reported highest life satisfaction score among the three age groups, and young adults obtained greater life satisfaction score than the late adolescents age group. It can also be observed from Table 4.5 that the mean life satisfaction score of the sample was  $M=22.89$  ( $SD=4.84$ ). Figure 4.10 represents the obtained life satisfaction score of the sample and the three age groups. Correlational analysis using Pearson’s product moment correlation showed that the correlation between life satisfaction score and happiness scores on OHQ and SHS-R is significantly positive with correlation value of  $r=.43$ ,  $p<.01$  and  $r=.30$ ,  $p<.01$ , respectively. This indicates that life satisfaction and happiness are positively correlated; implying that an increase in life satisfaction would also mean an increase in happiness. Thus, it can be said that the present finding is in support of hypothesis 5 stated as **‘Happiness will be positively related with life-satisfaction across late adolescents, young adults and elderly’**. Hence, hypothesis 5 is accepted, confirming of a positive association between happiness and life satisfaction.

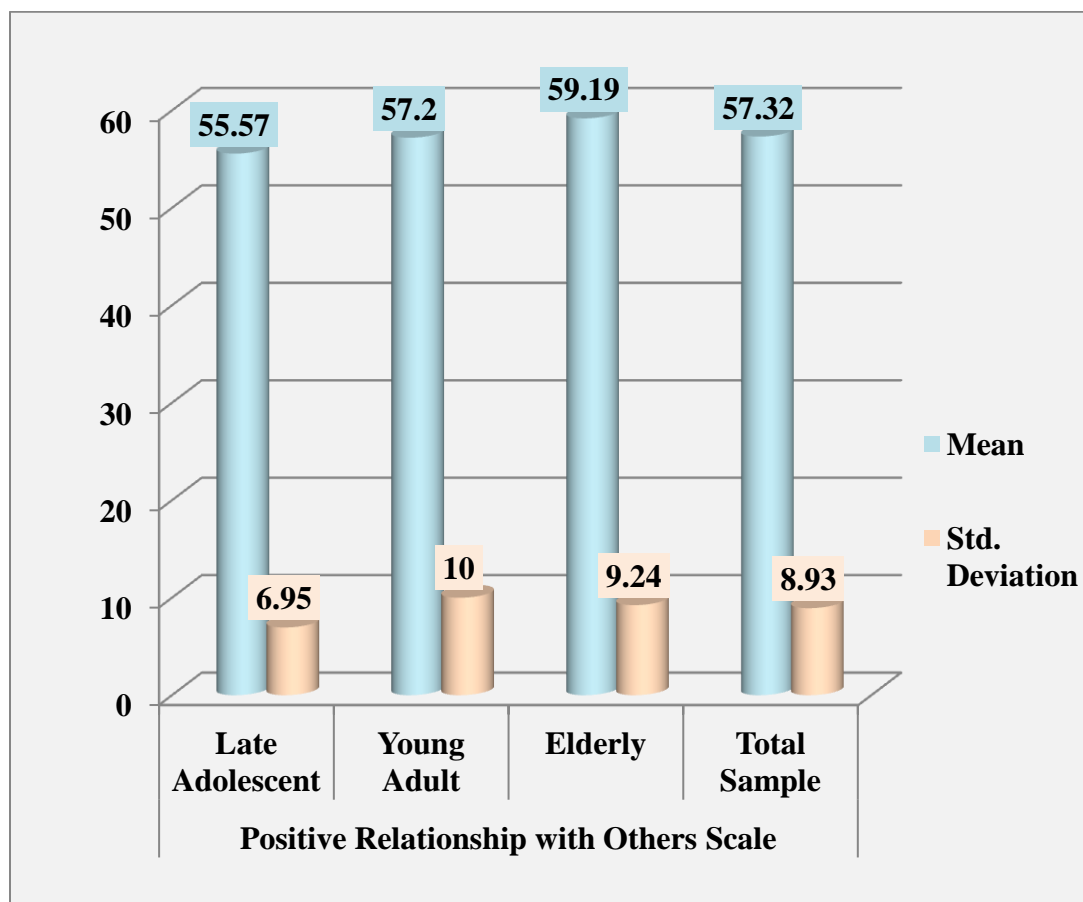


**Figure 4.10:** *Life Satisfaction Mean Scores across Late Adolescents, Young Adults, Elderly and total sample (N=450)*

#### **4.3.2.4.5. RELATIONSHIP BETWEEN HAPPINESS AND SOCIAL RELATIONSHIP ACROSS LATE ADOLESCENTS, YOUNG ADULTS AND ELDERLY**

The obtained results in Table 4.4 reveals that the mean social relationship score of late adolescents, young adults and elderly age groups were  $M=55.57$  ( $SD=6.95$ ),  $M=57.20$  ( $SD=10.00$ ) and  $M=59.19$  ( $SD=9.24$ ) respectively. This shows a tendency of increase in social relationship with increase in age as elderly age group reported highest self-esteem score among the three age groups, and young adults obtained greater social relationship

score than the late adolescents age group. It can also be observed from Table 4.5 that the mean social relationship score of the sample was  $M=57.32$  ( $SD=8.93$ ). Figure 4.11 represents the obtained social relationship score of the sample, and the three age groups.



**Figure 4.11:** Social relationship Mean Scores across Late Adolescents, Young Adults, Elderly and total sample ( $N=450$ )

Correlational analysis using Pearson's product moment correlation showed that the correlation between the social relationship score and the happiness scores on OHQ and SHS-R is significantly positive with moderate correlation value of  $r=.48$ ,  $p<.01$  and  $r=.27$ ,  $p<.01$  respectively. This indicates that social relationship and happiness are positively correlated, implying that an increase in social relationship would also mean an

increase in happiness. Thus, it can be said that the present finding is in support of hypothesis 6 stated as **‘Happiness will be positively related with social relationship among late adolescents, young adults and elderly’**. Hence, hypothesis 6 is accepted, confirming of a positive association between happiness and social relationship.

#### **4.3.3. HAPPINESS ACROSS THREE AGE GROUPS AFTER CONTROLLING SELF-ESTEEM, STRESS, PERSONALITY DIMENSIONS, LIFE SATISFACTION, AND SOCIAL RELATIONSHIP**

In an attempt to examine hypothesis 7 which stated as **‘There will be significant difference in happiness across late adolescents, young adults and elderly after controlling self-esteem, stress, personality dimensions, life satisfaction, and social relationship’**, multivariate analysis of covariance (MANCOVA) was performed to test the differences on happiness across age groups. The independent variables were the three age groups which included late adolescents, young adults and elderly. The dependent variables were the happiness scores on OHQ and SHS-R. The covariates were the scores on self-esteem, stress, five factor personality- openness, conscientiousness, extraversion, agreeableness, neuroticism, life satisfaction and social relationship. Before conducting MANCOVA, normality of the data were checked and descriptive statistics (such as Mean and SD) were computed to find out if there exist a significant difference between the control variables scores among late adolescents, young adults and elderly age groups, by using one-way ANOVA. Pearson’s product moment correlation was also calculated to check if the control variables (self-esteem, stress, five factor personality of openness, conscientiousness, extraversion, agreeableness and neuroticism, life satisfaction and

social relationship) scores and dependent variable (happiness) scores were significantly correlated.

Based on Table 4.4, it can be observed that one-way ANOVA showed significant difference in the self-esteem scores among late adolescents, young adults and elderly ( $F(2,447) = 3.09, p < .01, \eta^2 = .01$ ). Also, a significant positive correlation was found between self-esteem score and happiness score as showed in Table 4.5. Multivariate analysis using MANCOVA with age groups as independent variable and self-esteem as control variable showed that the MANCOVA for happiness measures yielded Wilk's  $\lambda = 0.83, F(4,890) = 21.28, p < 0.001, \eta^2 = 0.09$ .

One-way ANOVA showed significant difference in stress scores among late adolescents, young adults and elderly ( $F(2,447) = 8.25, p < .001, \eta^2 = .04$ ). Also, significant and negative correlation was found between self-esteem score and happiness score as given in Table 4.5. Further analysis using MANCOVA showed that there was statistically significant difference between the three age groups on combined dependent variables (happiness) after controlling for self-esteem, Wilk's  $\lambda = 0.83, F(4,890) = 21.28, p < 0.001, \eta^2 = 0.09$ .

It can be observed in Table 4.4 that there was no significant difference in openness to experience score among late adolescents, young adults and elderly ( $F(2,447) = 1.07, ns$ ), although Table 4.5 provided evidence of significant and positive correlation between openness to experience and happiness score. Multivariate analysis using age groups as independent variable, happiness scores as dependent variable, and openness to experience as control variable showed that the MANCOVA for happiness measures yielded Wilk's  $\lambda = 0.82, F(4,890) = 23.52, p < 0.001, \eta^2 = 0.10$ .



One-way ANOVA showed significant difference in agreeableness score among late adolescents, young adults and elderly ( $F(2,447) = 6.73, p < .001, \eta^2 = .09$ ). Also, there was significant positive correlation between agreeableness and happiness as given in Table 4.5. Multivariate analysis using MANCOVA with age groups as independent variable and conscientiousness as control variable showed that the MANCOVA for happiness measures yielded Wilk's  $\lambda = 0.83, F(4,890) = 21.13, p < 0.001, \eta^2 = 0.09$ .

There was significant difference in extraversion among late adolescents, young adults and elderly ( $F(2,447) = 6.66, p < .001, \eta^2 = .03$ ). Pearson's correlation showed significant positive correlation between dependent variable (happiness) and control variable (extraversion). Further analysis reveals that MANCOVA for happiness measures with age groups as independent variable and extraversion as control variable yielded Wilk's  $\lambda = 0.82, F(4,890) = 23.95, p < 0.001, \eta^2 = 0.10$ .

Based on Table 4.4, it can be further observed that one-way ANOVA showed significant difference on agreeableness score among late adolescents, young adults and elderly ( $F(2,447) = 11.07, p < .001, \eta^2 = .05$ ). There was significant and positive correlation between agreeableness score and happiness score as provided in Table 4.5. Further analysis using MANCOVA with age groups as independent variable and agreeableness as control variable showed that the MANCOVA for happiness measures yielded Wilk's  $\lambda = 0.84, F(4,890) = 20.41, p < 0.01, \eta^2 = 0.08$ .

There was significant difference on neuroticism among late adolescents, young adults and elderly ( $F(2,447) = 7.46, p < .001, \eta^2 = .03$ ). Pearson's correlation showed significant negative correlation between dependent variable (happiness) and control variable

(neuroticism). MANCOVA for happiness measures with age groups as independent variable and neuroticism as control variable yielded Wilk's  $\lambda = 0.83$ ,  $F(4,890) = 21.09$ ,  $p < 0.05$ ,  $\eta^2 = 0.09$ .

Significant difference on life satisfaction was observed among late adolescents, young adults and elderly ( $F(2,447) = 9.67$ ,  $p < .001$ ,  $\eta^2 = .04$ ). Pearson's product moment correlation reveals significant and positive correlation between dependent variable (happiness) and control variable (life satisfaction). Further analysis reveals MANCOVA for happiness measures with age groups as independent variable and life satisfaction as control variable yielded Wilk's  $\lambda = 0.83$ ,  $F(4,890) = 18.64$ ,  $p < 0.01$ ,  $\eta^2 = 0.08$ .

Based on Table 4.4, it can be observed that one-way ANOVA showed significant difference on the social relationship score among late adolescents, young adults and elderly ( $F(2,447) = 6.35$ ,  $p < .001$ ,  $\eta^2 = 0.03$ ). Correlational analysis also reveals significant and positive correlation between social relationship and happiness score as provided in Table 4.5. Further analysis using MANCOVA showed that there was statistically significant difference between the three age groups on combined dependent variables (happiness) after controlling for social relationship, Wilk's  $\lambda = 0.84$ ,  $F(4,890) = 19.83$ ,  $p < 0.01$ ,  $\eta^2 = 0.08$ .

All these findings clearly indicate that hypothesis 7 stated as **'There will be significant difference in happiness across late adolescents, young adults and elderly after controlling self-esteem, stress, personality dimensions, life satisfaction, and social relationship'** is accepted. It can be said that happiness increased across three age groups of late adolescents, young adults and elderly, with elderly reporting greater happiness

than both young adults and late adolescents. This remains statistically significant after controlling certain variables such as self-esteem, stress, five factor personality (i.e., openness, conscientiousness, extraversion, agreeableness, neuroticism) life satisfaction and social relationship.

#### **4.3.4. GENDER DIFFERENCES OF HAPPINESS ACROSS THE THREE AGE GROUPS**

In the present study, gender differences of happiness were examined in the three age groups, to test if the formulated hypotheses (H8, H9 and H10) were rejected or accepted. Mean, SD and independent sample t-test were computed for each age group to analyze the gender differences on happiness and draw research findings.

##### **4.3.4.1. GENDER DIFFERENCES OF HAPPINESS IN LATE ADOLESCENTS**

The obtained results in Table 4.7 shows that there exists a significant difference on happiness in late adolescents age group gender, with statistical value of  $t = -3.437$ ,  $p < .05$  on SHS-R and females ( $M=37.72$ ,  $SD=7.08$ ) reported greater happiness than males ( $M=33.57$ ,  $SD=7.68$ ). However, no significant difference on happiness was found between males and females on OHQ ( $t=-.333$ , ns), although females ( $M=116.67$ ,  $SD=15.22$ ) reported greater happiness than males ( $M=115.84$ ,  $SD=15.21$ ).

The findings provided in Table 4.7 contradict Hypothesis 8 stating **‘Male late adolescents will be happier than female late adolescents’** as results showed that females late adolescents reported significantly higher happiness score than their male counterpart on SHS-R, and same trend was observed on OHQ with female reporting higher happiness than male, although the differences were not statistically significant.

Hence, the stated hypothesis is not accepted as the present findings revealed that female late adolescents are happier than male late adolescents.

**Table 4.7: Mean, SD and t-value of Male and Female Late Adolescents on Happiness (N=150)**

| Happiness Scale                     | Male<br>N=75   | Female<br>N=75 | t-value              | p-value             |
|-------------------------------------|----------------|----------------|----------------------|---------------------|
|                                     | M (SD)         | M (SD)         |                      |                     |
| Oxford Happiness Questionnaire      | 115.84 (15.21) | 116.67 (15.22) | -0.333 <sup>ns</sup> | 0.740               |
| Subjective Happiness Scale- Revised | 33.57 (7.68)   | 37.72 (7.08)   | -3.437 <sup>**</sup> | 0.001 <sup>**</sup> |

df=148; ns= not significant; \*\* $p < .05$

#### 4.3.4.2. GENDER DIFFERENCES OF HAPPINESS IN YOUNG ADULTS

The obtained results in Table 4.8 shows that there is no significant difference on happiness between males and females in the young adults age group, with statistical value of  $t = -.713$  (ns) on OHQ, and  $t = -1.247$  (ns) on SHS-R. Females ( $M=122.13$ ,  $SD=17.23$ ) reported greater happiness than males ( $M=120.13$ ,  $SD=17.11$ ) on OHQ. Similarly, females ( $M=40.99$ ,  $SD=6.35$ ) showed greater happiness than males ( $M=39.57$ ,  $SD=7.48$ ) on SHS-R. The findings provided in Table 4.8 contradict Hypothesis 9 stating ‘**Male young adults will be happier than female young adults**’ as results showed that female young adults reported higher happiness score than male young adults on both happiness measures (OHQ & SHS-R), although there were no significant differences between

happiness score of the two gender (males and females). Hence, the stated hypothesis 9 is not accepted as present findings reveal that female young adults are happier than male young adults.

**Table 4.8: Mean, SD and t-value of Male and Female Young Adults on Happiness (N=150)**

| Happiness Scale                     | Male<br>N=75   | Female<br>N=75 | t-value              | p-value |
|-------------------------------------|----------------|----------------|----------------------|---------|
|                                     | M (SD)         | M (SD)         |                      |         |
| Oxford Happiness Questionnaire      | 120.13 (17.11) | 122.13 (17.23) | -0.713 <sup>ns</sup> | 0.477   |
| Subjective Happiness Scale- Revised | 39.57 (7.48)   | 40.99 (6.35)   | -1.247 <sup>ns</sup> | 0.214   |

*df=148; ns= not significant*

#### **4.3.4.3. GENDER DIFFERENCES OF HAPPINESS IN ELDERLY**

Results obtained from Table 4.9 reveals that there is significant difference on happiness between males and females in elderly age group, with statistical value of  $t = 2.598$ ,  $p < .05$  on OHQ, and  $t = 2.017$ ,  $p < .05$  on SHS-R. It was observed that elderly males ( $M = 127.44$ ,  $SD = 16.07$ ) reported greater happiness than elderly females ( $M = 120.94$ ,  $SD = 14.50$ ) on OHQ. Similarly, elderly males ( $M = 44.78$ ,  $SD = 7.74$ ) showed greater happiness than elderly females ( $M = 42.57$ ,  $SD = 5.41$ ) on SHS-R. The findings given in Table 4.9 is in line with Hypothesis 10 stating ‘**Male elderly will be higher happiness than female elderly**’ as results showed that male elderly reported higher happiness score than female elderly

on both happiness measures (OHQ & SHS-R), with statistically significant differences between happiness score of the two gender (male and female elderly). Hence, hypothesis 10 is accepted as present findings reveal that male elderly are happier than female elderly.

**Table 4.9: Mean, SD and t-value of Male and Female Elderly on Happiness (N=150)**

| Happiness Scale                     | Male<br>N=75   | Female<br>N=75 | t-value | p-value |
|-------------------------------------|----------------|----------------|---------|---------|
|                                     | M (SD)         | M (SD)         |         |         |
| Oxford Happiness Questionnaire      | 127.44 (16.07) | 120.94 (14.50) | 2.598** | 0.010   |
| Subjective Happiness Scale- Revised | 44.78 (7.74)   | 42.57 (5.41)   | 2.017** | 0.046   |

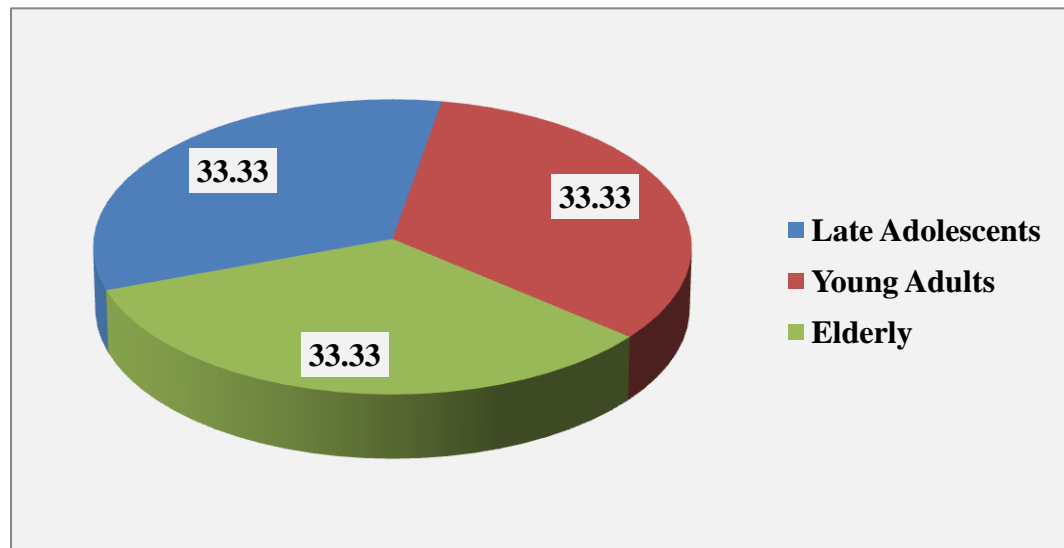
df=148; \*\* $p < .05$

#### **4.3.5. RELATIONSHIP BETWEEN HAPPINESS AND SOCIO-DEMOGRAPHIC VARIABLES ACROSS THREE AGE GROUPS**

The present study used OHQ and SHS-R to study happiness in late adolescents, young adults and elderly. Information on socio-demographic variables of late adolescents, young adults and elderly such as age, gender, religion, location of residence, marital status, type of family, education, occupation, and income were collected to determine the significant relationship of these variables with level of reported happiness of the sample. The detailed information on socio-demographic profile of the sample is provided in Table 4.10. Hypothesis 11 would be tested in the following sub-sections.

#### 4.3.5.1. RELATIONSHIP BETWEEN HAPPINESS AND AGE

It was observed that 33.33% of the samples were late adolescents, 33.33% were young adults, and 33.33% were elderly. Figure 4.12 represents the age wise percentage of the sample. Table 4.11 shows that Pearson's correlation between age and happiness (as measured on OHQ) was significant and positive ( $r=.18, p<.01$ ). Correlation between age and happiness (as measured on SHS-R) was positive and significant ( $r=.39, p<.01$ ). This shows that happiness is positively related with age. Thus, hypothesis 11 is partially accepted as the correlation between happiness (on OHQ and SHS-R) and age were significantly and positively related with age.



**Figure 4.12:** Age wise percentage of the sample ( $N=450$ )

#### 4.3.5.2. RELATIONSHIP BETWEEN HAPPINESS AND GENDER

Based on gender, it was observed that 50% of the samples were male, and 50% were female as shown in Table 4.10. In late adolescent age group, 16.67% of the sample was female and 16.67% were male. Similarly, in young adult and elderly age group, 16.67%

of the samples were male and female respectively. Figure 4.13 represents the gender wise percentage of the sample, in late adolescents, young adults, elderly, and total sample.

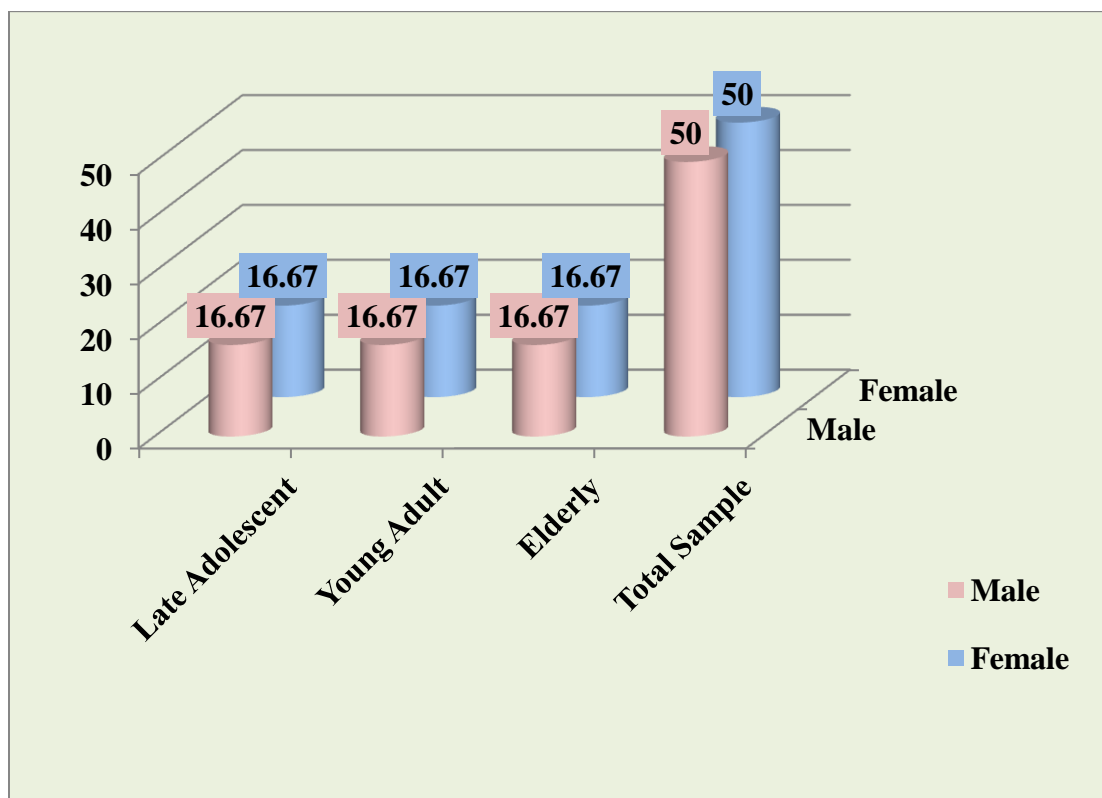


Figure 4.13: *Gender wise percentage of the sample (N=450)*

Table 4.11 shows that Pearson's correlation between gender and happiness (as measured on OHQ) was weak, not significant, and negative with  $r$  value of  $-.04$  (ns). Correlation between gender and happiness (as measured on SHS-R) was also weak and not significant with  $r$  value of  $.07$  (ns). It can be said that hypothesis 11 is partially rejected as the correlation between happiness (on OHQ and SHS-R) and gender were found to be not significant and negative.



**Table 4.10: Socio-demographic details of the sample (N=450)**

| Socio-Demographic Details |               | Frequency and Percentage of Three Age Groups and Total sample |                |                                 |                |                            |                |                                 |                |
|---------------------------|---------------|---|----------------|---------------------------------|----------------|----------------------------|----------------|---------------------------------|----------------|
|                           |               | <i>Late Adolescent<br/>(n=150)</i>                            |                | <i>Young Adults<br/>(n=150)</i> |                | <i>Elderly<br/>(n=150)</i> |                | <i>Total Sample<br/>(N=450)</i> |                |
|                           |               | Frequency   | Percentage (%) | Frequency                       | Percentage (%) | Frequency                  | Percentage (%) | Frequency                       | Percentage (%) |
| Gender                    | Male          | 75  | 16.67          | 75                              | 16.67          | 75                         | 16.67          | 225                             | 50             |
|                           | Female        | 75  | 16.67          | 75                              | 16.67          | 75                         | 16.67          | 225                             | 50             |
| Religion                  | Hindu         | 96  | 21.33          | 73                              | 16.22          | 150                        | 33.33          | 319                             | 70.89          |
|                           | Christian     | 46  | 10.22          | 72                              | 16             | 0                          | 0              | 118                             | 26.22          |
|                           | Muslim        | 8   | 1.78           | 5                               | 1.11           | 0                          | 0              | 13                              | 2.89           |
| Residence                 | Rural         | 92  | 20.44          | 86                              | 19.11          | 106                        | 23.56          | 284                             | 63.11          |
|                           | Urban         | 58  | 12.89          | 64                              | 14.22          | 44                         | 9.78           | 166                             | 36.89          |
| Marital Status            | Married       | 0   | 0              | 40                              | 8.89           | 150                        | 33.33          | 190                             | 42.22          |
|                           | Unmarried     | 150   | 33.33          | 110                             | 24.44          | 0                          | 0              | 260                             | 57.78          |
| Family Type               | Nuclear       | 113   | 25.11          | 73                              | 16.22          | 13                         | 2.89           | 199                             | 44.22          |
|                           | Joint         | 37  | 8.22           | 77                              | 17.11          | 137                        | 30.44          | 251                             | 55.78          |
| Education                 | High School   | 150   | 33.33          | 26                              | 5.78           | 83                         | 18.44          | 259                             | 57.56          |
|                           | Graduate      | 0   | 0              | 56                              | 12.44          | 48                         | 10.67          | 104                             | 23.11          |
|                           | Post-Graduate | 0   | 0              | 68                              | 15.11          | 19                         | 4.22           | 87                              | 19.33          |
| Occupation                | Student       | 150   | 33.33          | 100                             | 22.22          | 0                          | 0              | 250                             | 55.56          |
|                           | Self-Employed | 0   | 0              | 37                              | 8.22           | 0                          | 0              | 37                              | 8.22           |
|                           | Employed      | 0   | 0              | 13                              | 2.89           | 0                          | 0              | 13                              | 2.89           |
|                           | Retired       | 0   | 0              | 0                               | 0              | 150                        | 33.33          | 150                             | 33.33          |
| Average Monthly Income    |               | Rs. 3232/-  |                | Rs. 13497/-                     |                | Rs. 16983/-                |                | Rs. 11237.33/-                  |                |

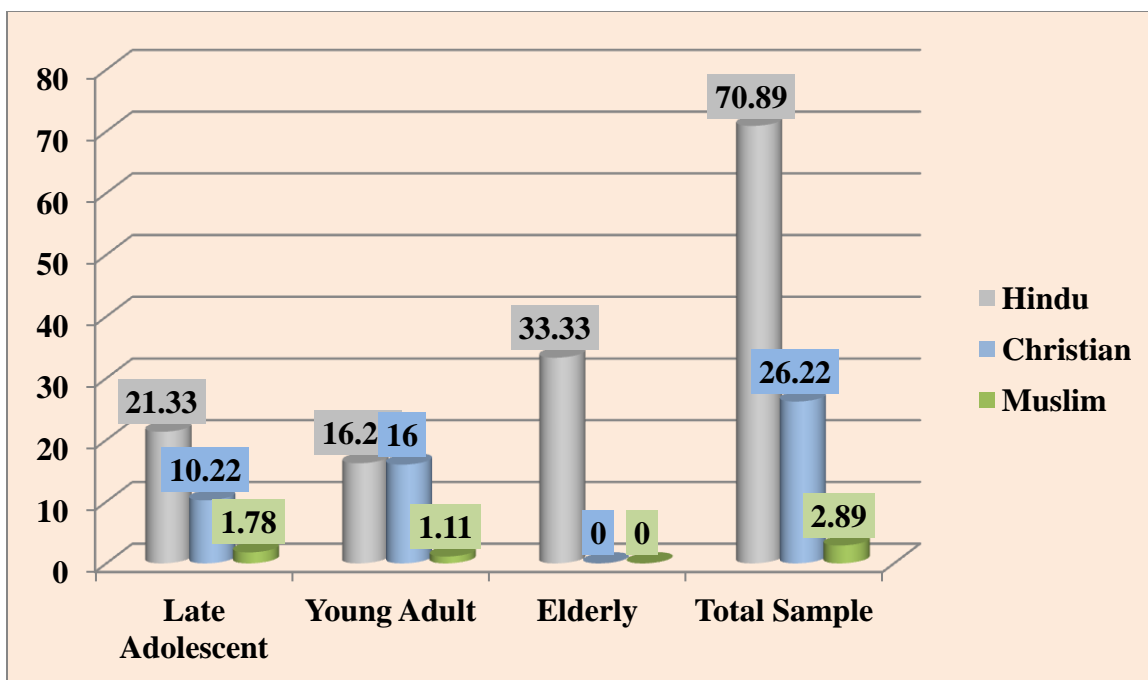
**Table 4.11: Pearson's product moment correlation between happiness and socio-demographic variables**

| Scales/<br>Variable | 1      | 2      | 3      | 4      | 5      | 6     | 7      | 8     | 9     | 10    | 11 |
|---------------------|--------|--------|--------|--------|--------|-------|--------|-------|-------|-------|----|
| 1.OHQ               | 1      |        |        |        |        |       |        |       |       |       |    |
| 2.SHS- R            | .44**  | 1      |        |        |        |       |        |       |       |       |    |
| 3.Age               | .18**  | .39**  | 1      |        |        |       |        |       |       |       |    |
| 4.Gender            | -.04   | .07    | -.02   | 1      |        |       |        |       |       |       |    |
| 5.Religion          | -.17** | -.13** | -.39** | -.07   | 1      |       |        |       |       |       |    |
| 6.Residence         | .14**  | -.02   | -.09   | .13**  | -.11*  | 1     |        |       |       |       |    |
| 7.MaritalStatus     | -.14** | -.31** | -.86** | .05    | .32**  | .11*  | 1      |       |       |       |    |
| 8.Family Type       | .02    | .19**  | .53**  | -.03   | -.21** | -.12* | -.49** | 1     |       |       |    |
| 9.Education         | .26**  | .17**  | .10*   | -.06   | -.02   | .24** | -.03   | .07   | 1     |       |    |
| 10.Occupation       | .16**  | .34**  | .96**  | -.03   | -.38** | -.11* | -.88** | .50** | .01   | 1     |    |
| 11.Income           | .42**  | .25**  | .41**  | -.18** | -.21** | .23** | -.42** | .19** | .64** | .44** | 1  |

N=450; \*\* $p < .01$ ; \* $p < .05$

#### 4.3.5.3. RELATIONSHIP BETWEEN HAPPINESS AND RELIGION

Based on religion, it can be observed in Table 4.10 that 21.33% of the sample in late adolescent age group was Hindu, whereas 10.22% were Christian and 1.78% was Muslim. In young adult age group, 16.22 were Hindu whereas Christian and Muslim consisted of 16 % and 1.11% respectively. In elderly age group, all the samples belonged to Hindu, contributing 33.33% of the total sample. In terms of overall total sample, 70.89% were Hindu, 26.22% were Christian and 2.89% were Muslim. Figure 4.14 represents the details of the sample with respect to religion.



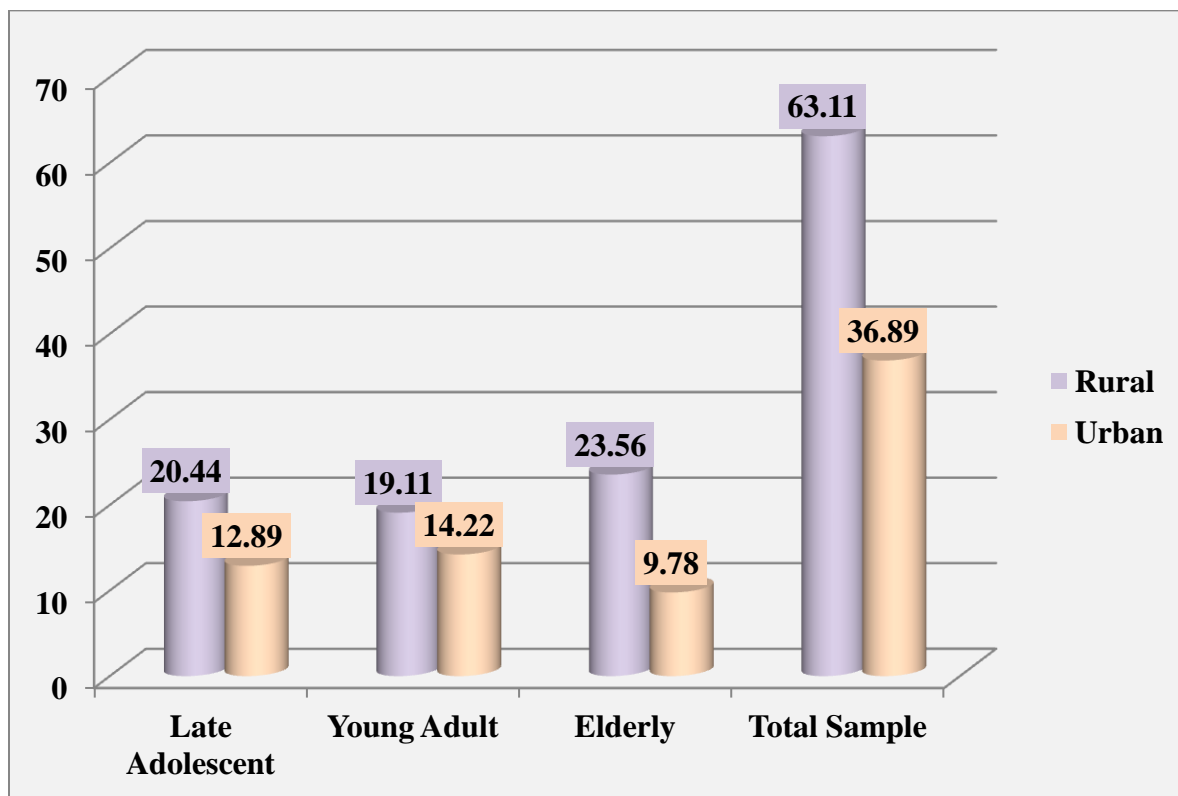
**Figure 4.14:** Religion wise percentage of the sample (N=450)

Pearson's product moment correlation analysis in Table 4.11 shows that religion has significant and negative relationship with happiness. Also, religion was also found to have significant, moderate, negative relation with age ( $r=-.39$ ,  $p<.01$ ). The relationship between religion and happiness (as measured on OHQ) was significant and positive with  $r$  value of  $-.17$ ,  $p<.01$ . Similarly, correlation between religion and happiness (as measured on SHS-R) was significant and positive with  $r$  value of  $-.13$ ,  $p<.01$ . Thus, hypothesis 11 was partially rejected as the relationship between happiness and religion was found to be negative according to the present findings.

#### **4.3.5.4. RELATIONSHIP BETWEEN HAPPINESS AND RURAL/URBAN LOCATION OF RESIDENCE**

Based on the location of residence, 63.11% of the total sample belonged to rural and 36.89% of the sample belonged to urban community. Across age-groups, 20.44% of the samples from late adolescent age group were from rural area and 12.89% were from

urban area. In young adult age group, 19.11% of the sample was from rural area and 14.22% was from urban area. In elderly age group, 23.56% were from rural and 9.78% were from urban area. Figure 4.15 represents the details of the location of residence of the sample.

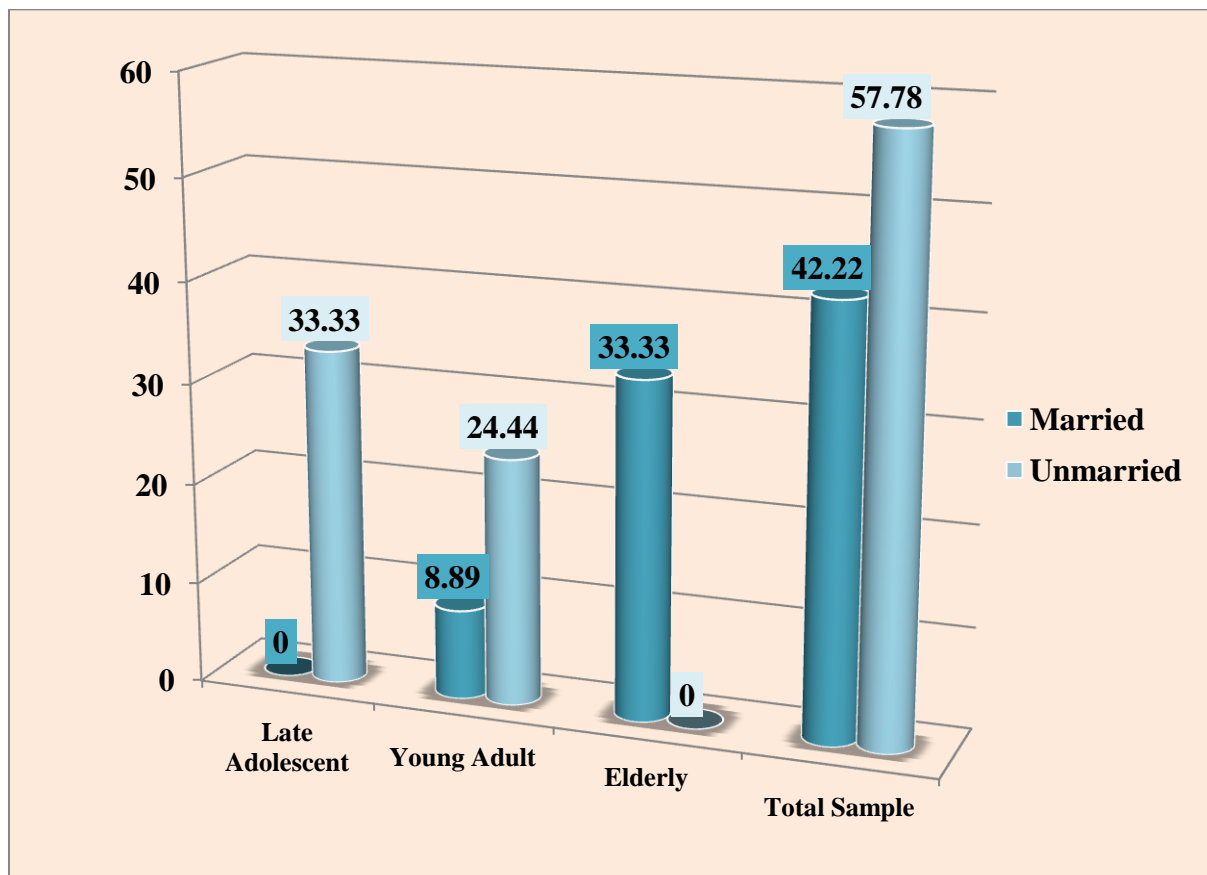


**Figure 4.15:** Location of residence wise percentage of the sample (N=450)

Based on obtained results provided in Table 4.11, it can be observed that there is mixed speculation regarding location of residence of the sample and happiness as there is significant and positive association between residence and happiness (as measured on OHQ) with  $r$  value of .14,  $p < .01$  and negative, insignificant association between religion and happiness (as measured on SHS-R) with  $r$  value of -.02 (ns). Hence, hypothesis 11 was partially rejected as the relation between happiness and location of residence was significant on only one measure of happiness.

#### 4.3.5.5. RELATIONSHIP BETWEEN HAPPINESS AND MARITAL STATUS

As it can be observed from Table 4.10 that the marital status of the total sample revealed that 57.78% were unmarried whereas 42.22% of the samples were married. Sample belonging to late adolescent age group were all unmarried (33.33%) whereas sample belonging to elderly age group were all married (33.33%). In young adult age group, 24.44% were unmarried and 8.89% were married. Figure 4.16 represents the details on the marital status of the sample. Correlational analysis in Table 4.11 shows that marital status has negative, significant relationship with happiness.



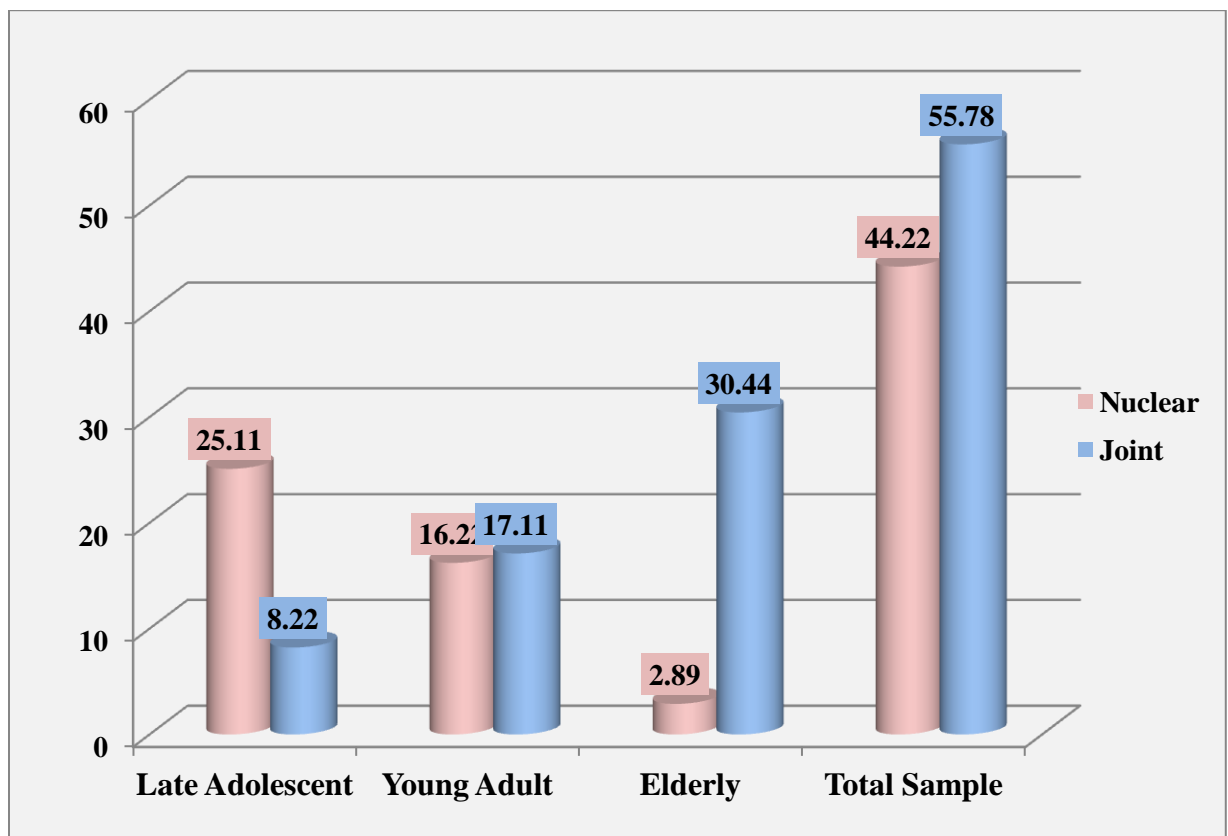
**Figure 4.16:** Marital status wise percentage of the sample (N=450)

There was negative, significant correlation between marital status and happiness (as measured on OHQ) with  $r$  value of  $-.14$ ,  $p < .01$ . Similarly, findings showed negative

significant correlation between marital status and happiness (as measured on SHS-R) with  $r$  value of  $-0.31$ ,  $p < .01$ . Thus, it can be said that hypothesis 11 was partially rejected as happiness and marital status was found to be negatively related with each other.

#### 4.3.5.6. RELATIONSHIP BETWEEN HAPPINESS AND TYPE OF FAMILY

Based on family type of the total sample, as presented in Figure 4.17, 55.78% were from joint family type whereas 44.22% were from nuclear family type. In late adolescent age group, 25.11% were from nuclear family and 8.22% were from joint family. In young adult age group, 17.11% were from joint family and 16.22% were from nuclear family type. In elderly age group, 30.44% of the samples were from joint family type whereas only 2.89% of the samples were from nuclear family type.

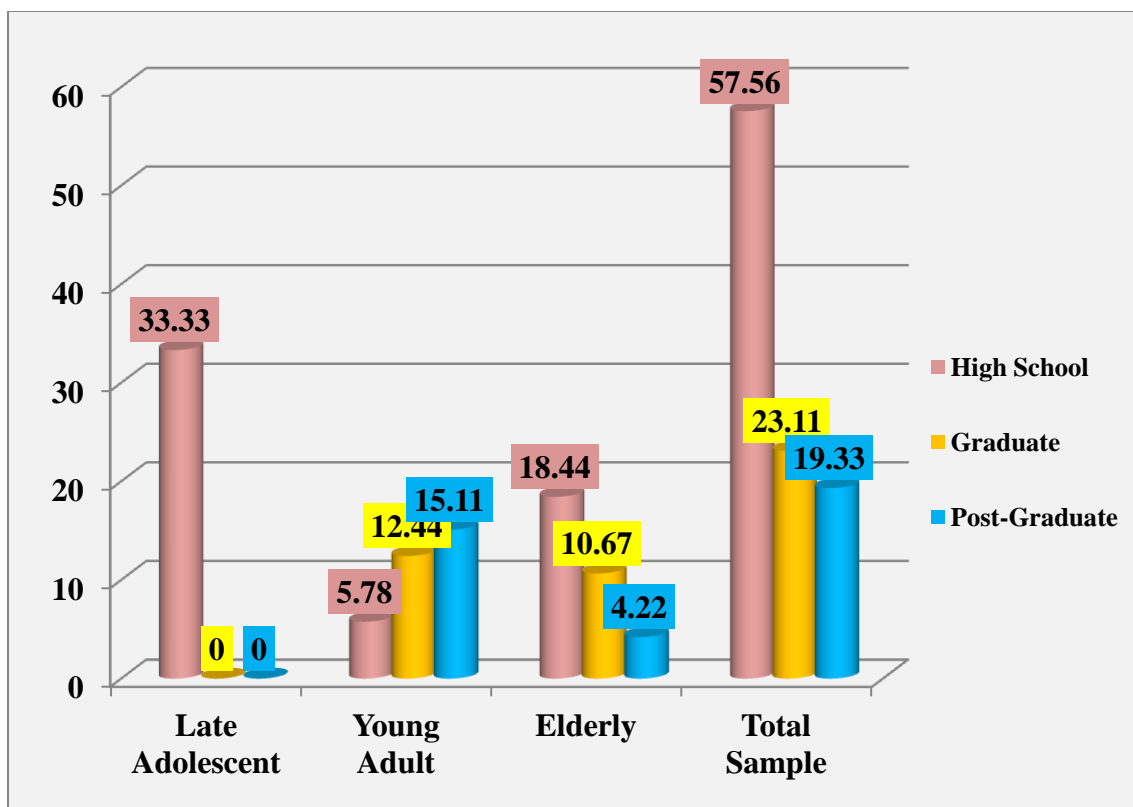


**Figure 4.17:** Type of Family wise percentage of the sample ( $N=450$ )

Pearson's product moment correlation between family type and happiness showed mixed findings of both the happiness measures (OHQ and SHS-R) fetching mixed result of significant and positive correlation, and not significant correlation. The obtained correlation value of  $r=.02$  between family type and happiness (as measured on OHQ) reveals no significant relationship between the two. However, the obtained correlation value of  $r=.19$ ,  $p<.01$  between family type and happiness (as measured on SHS-R) reveals a significant and positive correlation between happiness and family type. Hence, hypothesis 11 was partially rejected as the relation between happiness and family type was significant on only one measure of happiness.

#### **4.3.5.7. RELATIONSHIP BETWEEN HAPPINESS AND EDUCATION**

Based on education, it can be observed from Table 4.10 that 57.56% of the total samples were having high school degree, 23.11% were graduates and 19.33% of the sample had post-graduate and above degrees. In terms of age groups, all of the samples in late adolescent age group had high school degree (33.33%).



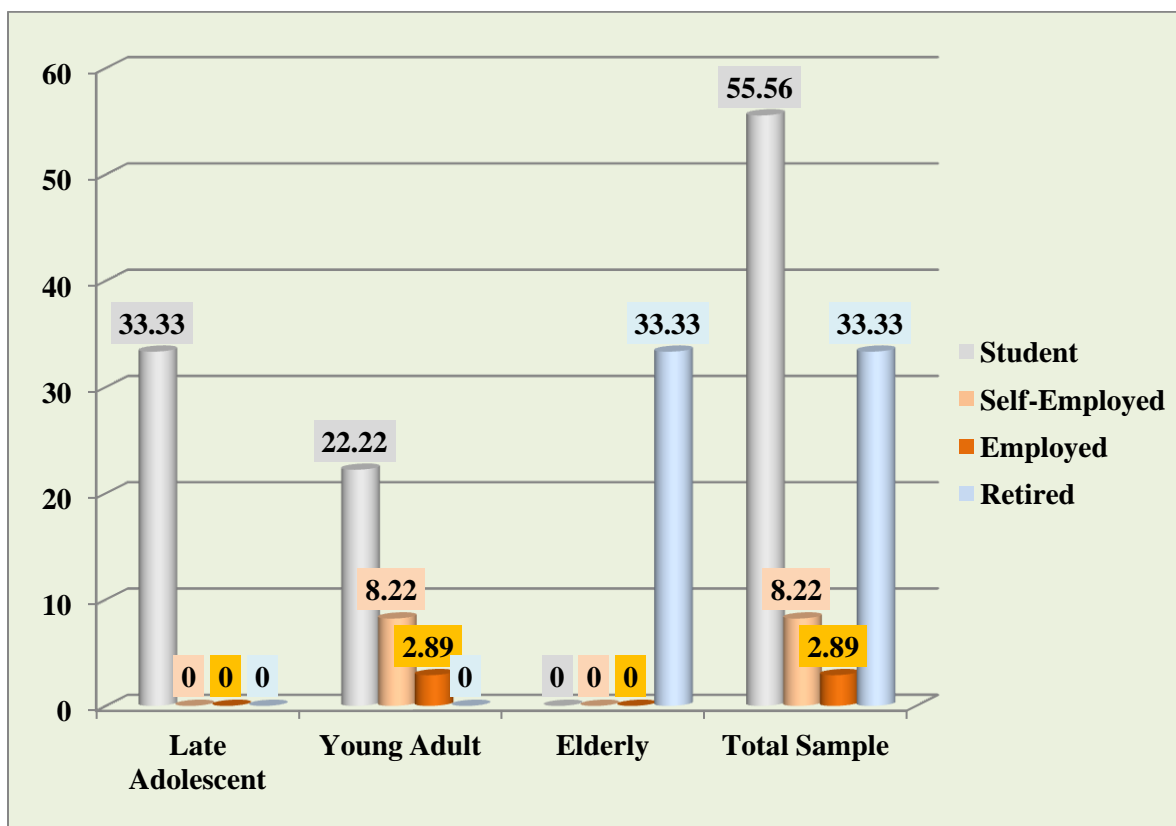
**Figure 4.18:** Education wise percentage of the sample ( $N=450$ )

However, in young adult age group, 15.11% were post-graduates and above, 12.44% were graduates and 5.78% had high school degree. In elderly age group, 18.44% had high school degree, 10.67% were graduates and 4.22% were post-graduates and above. The educational details of the sample are represented in Figure 4.18. Pearson's product moment correlation revealed significantly positive, moderate correlation between education and happiness (as measured on OHQ), with  $r$  value of .26,  $p < .01$  and significant and positive correlation between education and happiness (as measured on SHS-R) with  $r$  value of .17,  $p < .01$ . This leads to the finding that hypothesis 11 is partially accepted as the relationship between happiness (OHQ and SHS-R score) and education was found to be significantly and positively correlated.



#### 4.3.5.8. RELATIONSHIP BETWEEN HAPPINESS AND OCCUPATION

On the basis of occupation, it can be observed from Table 4.10 that 55.56% of the total samples were student, 33.33% were pensioners, 8.22% were self-employed and 2.89% were employed. All the samples in late adolescent age group were student (33.33%), whereas all the samples in elderly age group were pensioners (33.33%). In young adult age group, 22.22% were students, 8.22% were self-employed whereas 2.89% were employed. These observations are graphically represented in Figure 4.19.



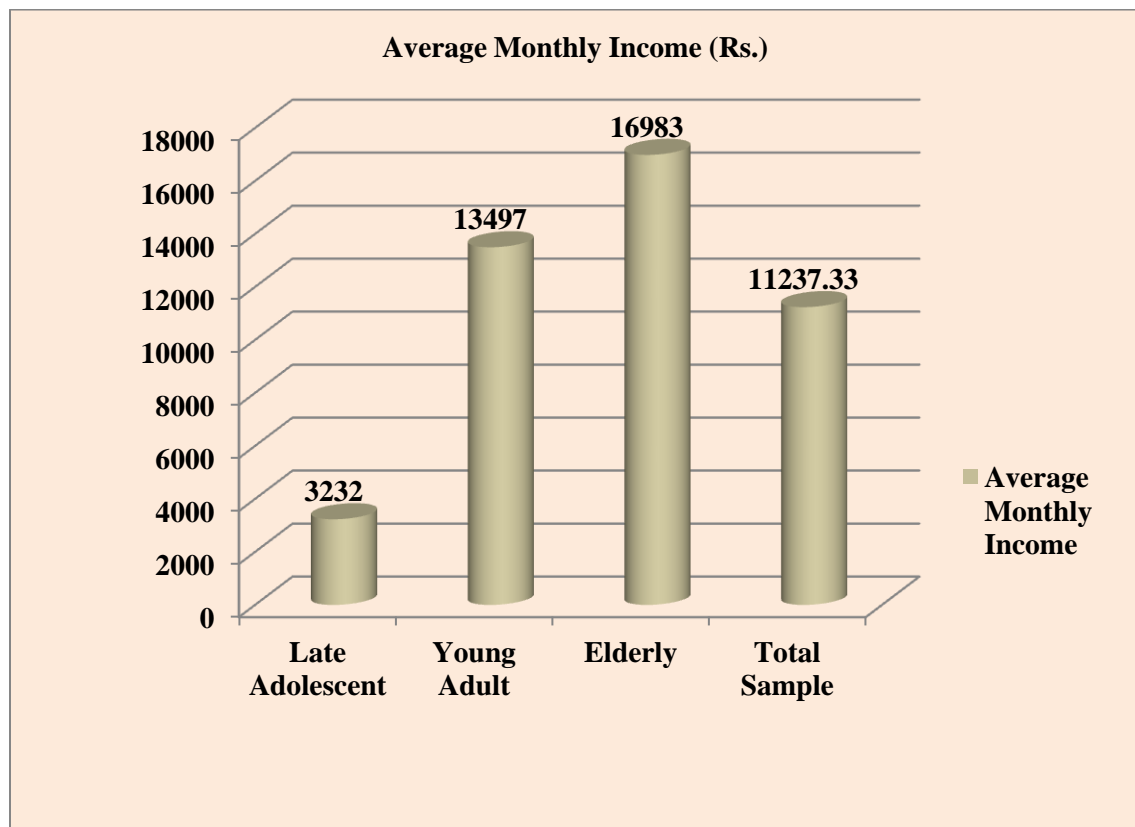
**Figure 4.19:** Occupation wise percentage of the sample (N=450)

Further analysis using Pearson's correlation revealed that occupation and happiness (as measured on OHQ) was positively, significantly related with  $r$  value of .16,  $p < .01$ . Additionally, the correlation between occupation and happiness (as measured on SHS-R)

was moderately significant and positive with  $r$  value of .34,  $p < .01$ . Thus, hypothesis 11 is partially accepted as the relationship between happiness and occupation was found to be significantly and positively correlated.

#### 4.3.5.9. RELATIONSHIP BETWEEN HAPPINESS AND INCOME

In late adolescent age group, the average monthly income was Rs. 3,232/- whereas in young adult and elderly age group, the average monthly income were Rs.13, 497/- and Rs.16,983/- respectively. The average monthly income of the total sample was Rs. 11, 237.33. The average monthly income of each age groups and the total sample was found out by calculating the average of all the monthly income details provided by the participants. Figure 4.20 represents the average monthly income details of the sample in the present study.



**Figure 4.20:** Average monthly income of the sample ( $N=450$ ) in Indian Rupee (INR/Rs.)

It can be observed from Table 4.11 that income and happiness has moderate, significant positive correlation. Pearson's correlation between income and happiness (as measured on OHQ) was .42,  $p < .01$  and between income and happiness (as measured on SHS-R) was .25,  $p < .01$ . Thus, hypothesis 11 is partially accepted as the relationship between happiness and income was significant and positive.

All these results considering the socio-demographic variables and happiness, indicate that hypothesis 11 stated as **'Happiness will be significantly and positively related with socio-demographic variables across late adolescents, young adults and elderly'** is partially accepted, as only four out of nine socio-demographic variables were found to have significant and positive relationship with happiness (on both measures of OHQ and SHS-R).

#### **4.3.6. MAIN EFFECT OF SELECTED SOCIO-DEMOGRAPHIC VARIABLES ON HAPPINESS ACROSS LATE ADOLESCENTS, YOUNG ADULTS AND ELDERLY**

The effect of age, education, occupation, and income on happiness was examined to determine which of these selected socio-demographic variables has significant effect on happiness across late adolescents, young adults and elderly. From Table 4.12, it can be observed that on OHQ, the main effect of age  $F(15,185) = .62$  (ns), of occupation  $F(2,185) = .72$ (ns) and income  $F(15,185) = 1.23$ (ns) on happiness was not significant. However, the main effect of education on happiness was significant ( $F(2,185) = 3.22$ ,  $p < .05$ ).

**Table 4.12: Main effect on selected socio-demographic variables on OHQ happiness**

| <b>Selected Socio-demographic variables</b> | <b>df</b> | <b>F value</b> | <b>p-value</b> |
|---|-----------|----------------|----------------|
| Age   | 15, 185   | .62            | .860 (ns)      |
| Education                                   | 2, 185    | 3.22*          | .042*          |
| Occupation                                  | 2, 185    | .72            | .490 (ns)      |
| Income                                      | 58, 185   | 1.23           | .158 (ns)      |

**Note:** ns= not significant; \*  $p < .05$

Similarly, it can be observed from Table 4.13 that on SHS-R, the main effect of age  $F$  (15,185) =.74 (ns), education  $F$  (2,185) =.14(ns), occupation  $F$  (2,185) =.53(ns) and income  $F$  (15,185) =1.15 (ns) on happiness was not significant.

**Table 4.13: Main effect on selected socio-demographic variables on SHS-R happiness**

| <b>Selected Socio-demographic variables</b> | <b>df</b> | <b>F value</b> | <b>p-value</b> |
|---|-----------|----------------|----------------|
| Age   | 15, 185   | .74            | .740 (ns)      |
| Education                                   | 2, 185    | .14            | .871 (ns)      |
| Occupation                                  | 2, 185    | .53            | .592 (ns)      |
| Income                                      | 58, 185   | 1.15           | .245 (ns)      |

**Note:** ns= not significant;  $N=450$

The results in Table 4.13 indicate that only education had a significant effect on happiness as observed on OHQ mean happiness score. However, age, occupation, and

income did not have significant effect on happiness. Based on SHS-R mean happiness score, it was found that none of the socio-demographic variables had a significant effect on happiness except education. Thus, it can be said that hypothesis 12 stated as **‘There will be significant effect of selected socio-demographic variables on happiness across late adolescents, young adults and elderly’** is partially accepted as only one socio-demographic variable (education) was found to have significant effect on happiness.

#### **4.5. DISCUSSION**

In this study, an attempt was made to study happiness as a psychological construct. Six research objectives were formulated and accordingly 12 hypotheses were framed. The first objective examined happiness across late adolescents, young adults and elderly to find an answer on the main research question of the present study i.e., are older people happier than younger people. The second objective studied the relationship between happiness and psychosocial variables of self-esteem, stress, five factor personality, life satisfaction, and social relationship. The third objective of this study tested if the significant difference in happiness across three age groups remains significant after controlling self-esteem, stress, personality, life-satisfaction and social relationship. The fourth objective of the present study examined the gender differences of happiness across late adolescents, young adults and elderly. The hypotheses (H8, H9, and H10) were articulated to accomplish the fourth objective of this study. The fifth objective examined the relationship between happiness and socio-demographic variables by examining the correlation between happiness, and age, gender, religion, location of residence, marital status, family type, education, occupation and income. The sixth objective examined the significant effect of selected socio-demographic variables which has significant and

positive relationship with happiness. The results reported in the previous sections are being explored in subsequent subsections.

#### **4.5.1. Happiness Across Age Groups**

Present study findings revealed that elderly are happier than young adults and late adolescents, indicating of a possible linear relationship between age and happiness. It was observed that the relationship between happiness and age may be in the form of linearity when happiness is measured by positive attributes, and the findings of the present study also support this, thereby confirming that older people (elderly) are happier than younger people (young adults and late adolescents). This is coherent with earlier research studies which showed that age is positively correlated with happiness because, with age, individuals developed the ability to gain better insight and build self-esteem from early year's experiences which in turn increases the quality of life and overall happiness (Gove, Ortega, & Style, 1989; Yang, 2008). Furthermore, Argyle (2003) claimed that older adults have greater ability to deal with negative life events in comparison to younger adults. It can be said that with the advent of retirement, older adults experience less stress from work although there are other factors associated with aging, such as, income, marital status, number of children, and religious attendance - which strongly affect an individual's sense of well-being (Ellison, 1991; Waite, 1995; Mroczek & Kolarz, 1998; Easterlin, 2003; Gredtham & Johannesson, 2001; Frey & Stutzer, 2002; Kohler, Behrman, & Skytthe, 2005; Blanchflower & Oswald, 2008; Frijters & Beatton, 2012). Thomas et al. (2016) also supported the linear improvement in various attributes of mental health in elderly. Likewise, Cartensen et al. (1999) reported that as adult age, they are able to better regulate their emotions and thus experience increased happiness in later

life. According to socio-emotional selectivity theory (Carstensen, 1995), older people developed the ability to sustain high SWB through their improved emotional regulation, by selectively engaging in close relationships. Diener and Suh (1997) reported that older people showed higher life satisfaction than younger people. Research studies have provided evidence of a positive relationship between age and subjective well-being (Stock, Okun, Haring, & Witter, 1984; Shmotkin, 1990).

#### **4.5.3. Relationship between Happiness and Self-Esteem**

A significant and positive relationship between happiness and self-esteem was observed in the present study which is coherent with earlier empirical evidence of a significant positive relationship between self-esteem and happiness (Shackelford, 2001; Baumeister et al. 2003; Furr, 2005; Lyubomirsky, Tkach & DiMatteo, 2006; Mruk, 2006). Such similar pattern of relationship between self-esteem and life satisfaction has been found among college students (Lucas et al., 1996), retired persons (Lyubomirsky et al., 2006) and adolescents (Rey et al., 2011), thereby confirming of a positive association between happiness and self-esteem. Schimmack and Diener (2003) provided evidence that high degree of self-esteem, optimism and life satisfaction are related with similar patterns of better individual functioning such as improved health, job and interpersonal relationships, which contributes to overall level of happiness. High self-esteem levels are linked with increased happiness and decreased emotional distress (Brown, Dutton, & Cook, 2001). This can be interpreted as having high self-esteem would significantly increase one's level of reported happiness as those with high level of self-esteem will be able to effectively maintain their self-worth, self-image and self-respect which will further help in maintaining the overall level of happiness. Individuals with high self-esteem are more

likely to be self-confident in making new friends, maintaining their work/family responsibilities and coping with problems. Thus, individuals with high self-esteem often report that they are happy and satisfied with their lives (Brown & Marshall, 2001; Katz, 1998). On the contrary, individuals with low self-esteem are prone to think negatively about themselves, have negative self-image and low self-worth which can cause painful psychological distress, such as feelings of sadness, extreme loneliness and excessive anxiety. There are ample empirical evidence to support the claim of a strong correlation between happiness and self-esteem (Diener et al., 1995; DeNeve & Cooper, 1998; Baumeister et al. 2003; Furr, 2005).

#### **4.5.4. Relationship between Happiness and Stress**

Significant and negative relationship between happiness and stress was observed, which is supported by previous research evidence showing that stress has negative effect on happiness (Zika & Chamberlain, 1987; Chatters, 1988; Suh et al., 1996). In order to understand the relationship between happiness and stress, one need to consider how both can influence a person's quality of life because stress can adversely affect the quality of life through its impact on people's physical and mental health. Psychological distress can have immense negative impact on health and well-being outcomes such as the occurrence of psycho-somatic disorders and increase in health problems (Tessler & Mechanic, 1978; Jackson & Chatters et al., 1982; Kessler, Price, & Wortman, 1985). Furthermore, it can be said that those who are less happy about their overall life also has a tendency to experience stress more easily and more frequently than the happier individuals. It is evident that happy people can effectively deal with stressors as they gather and build



adequate personal resources (such as resilience, cheerfulness, psychological hardiness etc.) to handle the negative impact of stressors.

#### **4.5.5. Relationship between Happiness and Personality**

Findings from the present study revealed that the five factor personality and happiness were significantly related. It was found that openness to experience and happiness were positively related. This is supported by earlier research findings which claimed that individuals with high level of openness to experience, bears resemblance with the emotional qualities of an extravert, and as a result, experience greater happiness level. Individuals with high degree of openness to experience consider happiness as an excited affect because they are flexible in their way of thinking, pursuing of idealistic goals, having the ability to accommodate different or opposing opinions or perspectives, and remains highly imaginative (Matsumoto, Takeuchi, Nakajima, & Iida, 2000; Terracciano, Merritt, Zonderman, & Evans, 2003; Aluja, Garcia, & Garcia, 2003). Openness to experience contribute to higher level of happiness as it gives the opportunity to be flexible and open, toward life and living because individuals with a high level of openness to experience tend to use unconventional methods or approaches to achieve goals/gain opportunities, accept new things easily, have strong interest in life, and display the love for thrill-seeking adventures (Ryckman, 2008).

Conscientiousness and happiness were positively related and is coherent with earlier research findings which showed that conscientiousness stimulate positive experience during social interactions, as well as in situations of achievement, resulting in increased subjective well-being (McCrae & Costa, 1991; Costa, McCrae, & Dye, 1991). Conscientious has also been positively associated with positive affect, as those with a

high level of conscientiousness are found to be prudent, having high self-control and high regard for maintaining order. Researchers have shown that conscientiousness is associated with a strong tendency for emotional self-control and preventive regulatory focus, which ultimately results in higher level of happiness (Cabanac, 2002; Tsuchiya & Adolphs, 2007; Manczak, Zapata-Gietl, & McAdams, 2014).

The present study found that extraversion and happiness were significantly and positively related. This is supported by previous research finding (Argyle, 1987) which indicates that extraversion strongly correlates with happiness. Extraverts often seem to engage in a number of very enjoyable social activities and are more likely to exchange smiles and other positive non-verbal signals with others, which induce positive moods (Argyle & Lu, 1990). Extraverts also possess certain social skills, such as assertiveness, which in turn produces happiness, probably because it leads to better control over social relationships, cooperativeness and leadership (Argyle & Lu, 1990). Extraversion represents the characteristics nature of outgoing, enthusiastic, energetic, assertiveness, sociability, talkativeness and a tendency to seek stimulation in the company of others (Norman, 1963; Goldberg, 1990; Costa, McCrae, & Dye, 1991). The tendency of extraverts to be sociable, outgoing and outspoken, results in attracting more people and active social engagement which leads to reports of a higher level of happiness. According to DeNeve and Cooper (1998), extraversion is associated with positive affect and life satisfaction as Headey, Holmstrom and Wearing (1989) found that extraversion produces happiness via enjoyable social events, at work and with friends.

The present finding showed that happiness and agreeableness are positively related and is supported by earlier research (McCrae & Costa, 1991) which showed that agreeableness

contributes to higher happiness level because of a strong tendency to value and enjoy relationships with others and easily make friends with others, in addition to being gentle, modest and a strong tendency to self-regulate emotions (Tobin, Graziano, Vanman & Tassinary, 2000; Graziano, Habashi, Sheese, & Tobin, 2007). Agreeableness has strong resemblance to extraversion in terms of positive affect, but differs from extroversion as it is more closely related to altruistic behaviors, sympathetic, and being considerate of others.

The findings of this study indicated a significant and negative relationship between neuroticism and happiness which is coherent with earlier research findings of neuroticism having negative relationship with happiness as it represents the psychological instability that leads to negative emotions such as anxiety, fear, sadness, shame, anger, and guilt (Costa, McCrae, & Dye, 1991; Fossum & Barrett, 2000; Tan, Der Foo, & Kwek, 2004; Neff, Rude, & Kirkpatrick, 2007). Individuals with high level of neuroticism are sensitive, nervous, self-conscious, and impulsive as they are found to cope poorly with stressors due to emotional instability and poor impulse control. Also, they tend to have poor psychological wellbeing (Dwan & Ownsworth, 2017). In other word, neuroticism is known to produce unhappiness. Headey, Holmstrom and Wearing (1985) found that neuroticism is a part of a 'chain of ill-being' where neuroticism led to unfavorable life events which in turn leads to unhappiness. According to DeNeve and Cooper (1998), neuroticism is the most important predictor of negative affect and life satisfaction.

#### **4.5.6. Relationship between Happiness and Life-satisfaction**

Results showed that there is significant and positive relationship between happiness and life satisfaction. This is supported by previous research findings as Beutell (2006) stated

that life satisfaction has positive relationship with better physical and mental health, longevity, and other positive outcomes. Borooah (2006) also provided evidence that the degree of satisfaction with life standards is a factor for attaining happiness. Lyubomirsky et al. (2006) claimed that general satisfaction with life, social relationships and disposition and temperamental features (e.g., being extrovert) are the best predictors of happiness. In addition, Chow (2009) argued that improved levels of life satisfaction give rise to better health in the future.

#### **4.5.7. Relationship between Happiness and Social Relationship**

Significant and positive relationship between happiness and social relationship was observed in the present study. There is strong research evidence to support this finding as social relationship is considered as one of the important domains and strongest predictor of happiness (Campbell, Converse, & Rodgers, 1976; Myers, 2000; Argyle, 2001). For instance, support from family, friends, and significant other is related to reports of greater subjective well-being (Wan, Jaccard, & Ramey, 1996; Walen & Lachman, 2000; Gallagher & Vella-Brodrick, 2008). Meta-analyses on the relation between objective social variables (such as number of relationships and number of friends) and SWB showed small to moderate range effect sizes (Lucas & Dyrenforth, 2006; Lucas et al., 2008). There is substantial amount of research findings which showed that a range of psychological benefits are associated with a supportive social network (Cohen, 2004; Koenig, George, & Titus, 2004; Dulin, 2005). Also, there are research evidences to prove that satisfying social relationships and social activities are important factors in the development of lasting happiness (Argyle et al., 1989; Diener & Seligman, 2004). The primary functional importance of social relationships focuses on social support and its

complimentary effects on mental and physical health (Cohen et al., 2000; Taylor, 2010) because personal relationship is one of the most important sources of happiness (Diener, 1984; Argyle, 1987; Ryff, 1989; Myers, 1992; Kahana et al., 1995; Myers & Diener, 1995). Numerous studies support the positive relationship between happiness and friendship, marriage, intimacy, and social support (Lyubomirsky et al., 2006). Indeed, people are happiest when surrounded by friends (Csikszentmihalyi & Hunter, 2003). Myers (1992) also claimed that happy people are more likely to have friends who encourage and support them as having a supportive social circle really act as a defense mechanism against stressors and life events. Research findings indicate that close friendships can help buffer stress and reduce distress arising due to loneliness, anxiety, boredom, and loss of self-esteem (Peplau & Perlman, 1982; Reis, 1984; Argyle, 1987).

#### **4.5.8. Happiness across Age Groups after controlling Self-Esteem, Stress, Personality, Life-Satisfaction and Social Relationship**

The present study found that happiness increase across age groups of late adolescents, young adults and elderly; endorsing that elderly are happier than both young adults and late adolescents, and this remains statistically significant after controlling for certain variables such as self-esteem, stress, five factor personality i.e., openness, conscientiousness, extraversion, agreeableness, neuroticism, life satisfaction and social relationship. In other words, it can be said that happiness across age groups is not affected by self-esteem, stress, personality, life satisfaction, and social relationship although these are important psychosocial variables which might affect the level of reported happiness. Present findings confirmed that happiness across age groups is not controlled by these variables.

#### **4.5.9. Gender differences of happiness across late adolescents, young adults and elderly**

Results revealed that female adolescents are happier than male adolescents and is supported by previous studies which showed that girls report being happier than boys (Crossley & Langdrige, 2005; Piqueras et al., 2011). However, there are studies which support girls being unhappier in comparison to boys (Levin, Currie, & Muldoon, 2009; Moljord et al., 2011). At the same time, some studies have found no gender differences of happiness in adolescents (Csikszentmihalyi & Hunter, 2003; Natvig, Albrektsen, & Qvarnstrøm, 2003; Mahon, Yarcheski, & Yarcheski, 2005). There is ample empirical evidence on adolescent's perceptions of happiness as it has been found to keep changing from year to year or season to season (Csikszentmihalyi & Hunter 2003), as well as the sources of happiness vary according to the progress they make through their growth and development (Chaplin, 2009). Some of the factors which play important roles in adolescent's happiness are friendships, family, romantic relationships, and leisure-time (Diener & Seligman, 2002; Cheng & Furnham, 2002; Csikszentmihalyi & Hunter, 2003; Demir et al., 2007; Demir & Weitekamp, 2007; Chaplin, 2009; O'Higgins, Sixsmith & Gabhainn, 2010; Van de Wetering et al., 2010). Researchers claimed that happiness has direct relationship with adolescent's health as it can have several positive benefits in later years of life and protect against negative mental health (Park, 2004; Lyubomirsky, Diener, & King, 2005; Diener, 2006; Seligman, 2008; Diener & Chan, 2011).

Female young adults were happier than male young adults according to the present study. This is coherent with previous research findings by Inglehart (2002) claiming that women in age range of 18-44 years had higher levels of life satisfaction than men. Similarly,

Blanchflower and Oswald (2004) found women reported higher levels of life satisfaction than men in both Great Britain and the United States. Piccinelli and Wilkinson (2000) stated that women are equally happy as men although they often report the experience of more negative emotions than men. Wood, Rhodes, and Whelan (1989) in a meta-analysis of ninety-three studies, found a small but statistically significant gender difference in happiness, with women reporting greater happier than men.

Present study showed that male elderly reported greater happiness than female elderly. This is supported by earlier research finding which showed that there is a decline in happiness reported by women in comparison to men (Stevenson & Wolfers, 2008). Other group of researchers (Clark & Oswald, 1994; Theodossiou, 1998; Umberson et al., 1996; (Gredtham & Johannesson, 2001; Frey & Stutzer, 2002; Subramanian et al., 2005) also found that males tend to be happier than females as females are more likely to face distress in social relationships resulting in unhappy feelings. Inglehart (2002) found that older women in the age range of 44 to 65 years and above had lower levels of levels of life satisfaction than older men. Recent study by Lima et al. (2016) on older adults showed that older men expect to live their lives happily in comparison to same-aged women.

#### **4.5.2. Happiness and Socio-Demographic Variables**

*Happiness and Age:* Analysis of results revealed that age and happiness are positively related. This is supported by earlier research findings which claimed that age has been found to be positively correlated with increased happiness (Yang, 2008). It can be said that happiness will also increase with increase in age across lifespan. Earlier research findings proclaimed that elder people report greater satisfaction in life as they develop to

have better insight and self-esteem during their formative experiences, which in turn, increase overall quality of life and happiness (Gove, Ortega, & Style, 1989). Carstensen (1995) also claimed that older people sustain high SWB because they've developed the ability to improve emotional regulation.

***Happiness and Gender:*** Findings from the present study revealed that there is a very weak, not significant association between gender and happiness. This could be interpreted as being male or female has very little to do with reported level of happiness because gender, although considered to be an important socio-demographic variable, has inconsistent findings in relation to happiness and well-being research. Findings of insignificant and weak association between gender and happiness in the present study is supported by previous studies (Diener, Suh, & Oishi, 1997; Diener & Biswas-Diener, 2000; Pavot & Diener, 2004) claiming that gender is not related to subjective well-being. However, other researchers argue that gender is significantly related happiness and well-being (Csikszentmihalyi & Hunter, 2003; Alesina et al., 2004; Inglehart et al., 2008; Yang, 2008; Swami et al., 2009; Barra, 2010).

***Happiness and Religion:*** Pearson's product moment correlation analysis showed that religion has significant and negative relationship with happiness. This indicates that greater religiosity will result in lower happiness, and vice versa, according to the findings of the present study, although there may be various reasons for such negative relationship between religion and happiness. This finding is coherent with earlier studies which provided evidence that there is no association between religion and happiness (Robins & Francis, 1996; Lewis et al., 1996; Lewis, Lanigan, Joseph, & De Fockert, 1997; Lewis et al., 1997; Lewis, Maltby, & Burkinshaw, 2000). Possible explanation for the negative



relationship between happiness and religion in the present study could be that religions practiced by the sample do not play a significant role in determining the level of happiness reported. Perhaps religious practices such as religious activity, devotion, charity and religious health of the present sample reveal that they are not successful in deriving happiness by engaging in religious practices, for some plausible reason which draws further attention for future investigation. It was observed that the three religions in the present study, such as Hinduism, Christianity, and Islam, were found to have negative and significant association with happiness. This is refuted by earlier empirical evidences stating that there is positive association between religiosity and happiness as found among Hindus (Maheshwari & Singh, 2009; Gupta & Chadha, 2014.), Christians (Abdel-Khalek & Lester, 2007; Khalek & Naceur, 2007; Ngamaba & Soni, 2017), and Muslims (Abdel-Khalek, 2007; Hafeez & Rafique, 2013; Gull & Dawood, 2013). Most findings on religion and happiness tend to suggest that religion/spirituality is of some benefit in terms of personal well-being, particularly in areas such as expressing emotions, encouraging virtues (for instance- gratitude, care, charitable actions), coping with adversity, and social connections (McCullough et al., 2002; Kim-Prieto & Diener, 2009; Fischer et al., 2010; Jung, 2014). Various studies have highlighted the positive association between happiness and religion, such as, in a recent review conducted by Tay et al. (2014) it was reported that majority of the human regarded religion as an important part of their daily lives to obtain peace and happiness. Vishkin et al. (2014) explained that religion is a major tool for emotion regulation and happiness by analyzing the concepts of joy, hatred, gratitude, awe and guilt from a religious perspective. In another study by Hafeez and Rafique (2013), it was found that psychological well-being was positively

predicted by religiosity. Opfinger and Gundlach (2011) showed that high religiosity displayed higher degree of happiness when other factors of happiness were kept constant and religiosity could be replaced by other factors such as an increase in income, at a certain constant level of happiness. Another survey by Abdel-Khalek (2007) revealed that among both the genders, the religiosity had a compelling and positive relationship with happiness, mental and physical health, whereas religiosity and anxiety/depression was negatively related.

***Happiness and Rural/Urban Location of Residence:*** Mixed findings in the present study regarding happiness and location of residence showed that the rural-urban divide in happiness depends on the type of measurement tools employed to assess how location of residence and happiness are related. Present study findings revealed that happiness and location of residence are positively associated and at the same time, the relation between both can also be insignificant and negative. Various studies have depicted the importance of location of residence in determining happiness as Florida (2008) and Sander (2011) claimed that location of residence indeed shape happiness level as people value the attributes of place they reside. According to Nordbakke and Schwanen (2013), the SWB of individuals and members of a community could be shaped by time and place and as a result, geographical context plays an important role in explaining SWB (Wang & Wang, 2016). The rural-urban difference in happiness can be due to various reasons, such as work/business opportunities, access to public services, education opportunities, social support and environmental features (such as air quality, pollution, green spaces etc.). Although economic growth and development in recent years has brought rapid growth of cities, but it has also raised concerns related to increased human interaction, such as

isolation, feelings of loneliness, alienation and social disorganization (Wirth, 1938). One may claim that rural areas suffer some material disadvantages such as lower income, fewer occupational opportunities, limited access to education, lack of health and transport services. However, rural areas can offer supportive communities, healthy social environment, positive environmental features such as absence of pollution and environmental hazards, and perceived security in terms of protection from economic deprivation, unemployment and safety from crime that could affect the perceptions of SWB (Schucksmith et al., 2009; Gilbert et al., 2016). On the rural-urban continuum, several studies (Cummings et al., 2003; Pew Research Center, 2006; Schucksmith et al., 2009; Davern & Chen, 2010; Knight & Gunatilaka, 2010; Berry & Okulicz-Kozaryn, 2011; Pateman, 2011; Sander, 2011) showed that rural areas have higher levels of SWB or happiness, while other studies (Murray et al., 2004; Gallup Organization, 2010; Millward & Spinney, 2013) provided evidence in favor of urban places.

***Happiness and Marital Status:*** There was significant and negative relationship between marital status and happiness according to the present research findings. This could be further interpreted as marital status is negatively related with happiness i.e. being unmarried leads to unhappiness since majority (57.78%) of the sample belongs to unmarried category. Based on this, it may be safe to assume that marriage is positively related with happiness. This is supported by previous studies which provided evidence of a small increase in subjective well-being during the transition from singlehood to marriage (Haring-Hidore et al., 1985; Williams, 2003; Lucas, 2005). Being married provide the positive effect of having a spouse, being able to enjoy marital status as husband and wife in the society, the merits of being able to communicate and express

oneself to partner supposedly contribute toward building better and healthy lifestyle which will go a long way in enhancing the level of reported happiness. Further, studies have shown that married individuals tended to feel happier than the single, divorced and widowed (Morawetz et al., 1977; Oswald, 1997; Gredtham & Johannesson, 2001; Clark & Oswald, 2002; Subramanian et al., 2005; Tokuda & Inoguchi, 2008). Dush and Amato (2005) confirmed the existence of a steady, linear relationship between various stages of relationship commitment and happiness, such as the shift from singlehood to steady dating to marriage. They further compared the effects of marital status and 'relationship happiness' on multiple measures of happiness and found that the correlation between marital status and 'life happiness' was positive but modest ( $r=0.15$ ), whereas 'relationship happiness' had a considerably stronger correlation with 'life happiness' ( $r=0.42$ ).

***Happiness and Type of Family:*** Relationship between the type of family and happiness showed mixed findings. Since majority of the sample in the present study belong to joint family type (55.78%), it can be interpreted that joint family type is positively associated with happiness and nuclear family type is not positively associated with happiness. The findings of the present study revealed that joint family type can positively contribute to happiness and the reason behind such positive association in the context of the present study may be attributed to better support system, mutual respect, understanding and co-operation, and control within the family members of joint family type. Previous research findings claimed that family life is one of the most important life domains central to life satisfaction and happiness although societal views of family have undergone dramatic transformations and fundamental changes as existing literature suggests that healthy

family relationships, strong family ties and adequate interaction among family members are strongly positively associated with individual well-being (Chilman, 1982; Argyle, 1987; Rodgers & Bachman, 1988). Mixed speculation regarding both joint and nuclear family type in relation to happiness is supported by earlier studies claiming that joint family setting, despite having better social support, closeness to traditions, respect for elders, greater control and power within the family, falls short in individual happiness and personal freedom (Takeda et al., 2004). On the other hand, nuclear family type enjoys the benefits of more happiness, freedom, and fewer responsibilities, but has the problems of lower tolerance among individuals, lack of adjustment capabilities and self-centeredness.

***Happiness and Education:*** Positive significant relationship between education and happiness was found in the present study. This can be interpreted as higher education leads higher happiness, which is supported by earlier research findings claiming that higher educated individuals were found to have happier feelings than the lower educated individuals (Oswald, 1997; Gredtham & Johannesson, 2001; Frey & Stutzer, 2002; Lyubomirsky & Diener, 2005; Subramanian et al., 2005; Tokuda & Inoguchi, 2008; Cheung & Chan, 2011) and contradicts earlier findings which claimed that education was negatively associated with well-being (Campbell et al., 1976; Diener et al., 1993; Howell et al., 2006). The significant and positive association between happiness and education in the present study may be explained as education enables an individual to observe, perceive and interpret events in his/her surroundings in a positive light to acknowledge and utilize personal resources for successful coping with problems and life circumstances. Education provides the basic necessity to fulfill our needs of being an

able, well-experienced individual to lead an enriched life, and thereby increasing our happiness level.

***Happiness and Occupation:*** Findings revealed that happiness and occupation are significantly and positively related, or in other words, unemployment and happiness are negatively associated. Being unemployed is related with unhappiness according to the present study findings, which is coherent with previous studies claiming that being unemployed is highly correlated with unhappy feelings and unhappiness, likely due to the financial constraints due to unemployment (Clark & Oswald, 1994; Gerlach & Stephan, 1996; Winkelmann & Winkelmann, 1998; Gredtham & Johannesson, 2001). In terms of direction of causation, Winefield et al. (1993) found that unemployment causes unhappiness as those without jobs are very unhappy, depressed, and have low self-esteem. It may be noticed that in the case of retired individuals, employment has different meaning for them than the unemployed, as research evidenced that retired persons were found to be happier on average than those still at work (Campbell et al., 1976).

***Happiness and Income:*** It was observed that happiness and income were positively associated, which means that increase in income will also result in increase in happiness and it is supported by previous studies claiming that income is positively correlated with happiness (George, 1992; Oswald, 1997; Gredtham & Johannesson, 2001; Subramanian et al., 2005; Howell et al., 2006; Tokuda & Inoguchi, 2008; Oshio & Kobayashi, 2010). But one need to be careful while considering the relationship between income and happiness, as income beyond a certain level does not necessarily positively associate with happiness or the perception of his/her own income and that of comparison with others may negatively relate with happiness. Ball and Chernova (2008) cautioned that money

can buy a minimal level of happiness but it is the perception of wealth as compared to others that can have a more substantial impact on happiness, indicating that an individual's perception of income is dependent upon his/her own income in relation to the past as well as income of other people. People's natural tendency to be richer is generally associated with increased wealth and higher SWB (Csikszentmihalyi, 1999; Myers, 2000). Research findings support the claim that association between socioeconomic status and SWB is consistent (Haring, Stock, & Okun, 1984; Pinqart & Sorensen, 2000).

#### **4.5.3. Main effect on selected socio-demographic variables on happiness across the three age groups**

The present study revealed that education had a significant effect on level of reported happiness. Four socio-demographic variables which had significant and positive relationship with happiness, were selected to evaluate its effect on happiness. Results showed that education is an important factor which affects happiness. This finding is coherent with earlier research study (Campbell, 1981) which provided evidence that education has an independent effect on happiness and has a stronger effect on those who are less well off. This can be attributed to the fact that education can free an individual from material concerns and focus more on healthy life style with adequate needs and wants to fulfill life demands despite the likelihood that education can also raise expectations to some extent. The real concern here is to develop the ability to have an optimal balance in life so that it can facilitate healthy living. Age, occupation, and income despite having significant and positive relationship with happiness were found to have no significant effect on happiness.

#### **4.6. OVERVIEW**

The present study revealed that older people (elderly) are happier than younger people (young adults and late adolescents); young adults also reported greater happiness than late adolescents. Happiness was positively related with self-esteem, openness to experience, conscientiousness, extraversion, agreeableness, life satisfaction, social relationship, but negatively related with stress and neuroticism. The significant difference on happiness was significant after controlling self-esteem, stress, five-factor personality - openness, conscientiousness, agreeableness, extraversion, neuroticism, life satisfaction and social relationship. Gender differences reveal that female young adults and female late adolescents were happier than their male counterpart. On the other hand, elderly male was happier than elderly female. Happiness was found to be significantly and positively correlated with age, education, occupation and income, but negatively correlated with religion and marital status. There was mixed speculation regarding relationship between happiness and location of residence, and type of family as Pearson's correlation value was found to be significant on only one happiness measure for these socio-demographic characters. On further analysis, it was found that education has significant effect on happiness.



# **CHAPTER V**

## **CHAPTER V**

# **SUMMARY, CONCLUSION AND SUGGESTIONS FOR FURTHER RESEARCH**

### *Chapter Outline*

- 5.1. Summary
  - 5.1.1. Introduction
  - 5.1.2. Statement of the Problem
  - 5.1.3. Objectives
  - 5.1.4. Hypotheses
  - 5.1.5. Methodology
    - 5.1.5.1. Population
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    - 5.1.5.5. Procedure for Data Collection
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## **CHAPTER-V**

### **SUMMARY, CONCLUSION AND SUGGESTIONS FOR FURTHER RESEARCH**

#### **6.1. SUMMARY**

This chapter represents the summary of the present study, and would briefly discuss how the problem aroused to examine happiness across age groups. Formulation of objectives, framing of hypothesis, methodology, major findings, delimitations and implications are discussed accordingly.

##### **6.1.1. Introduction**

Happiness has been defined as the global, subjective qualities of the extent to which a person is happy, and it can be assessed by the overall reported general happiness level of an individual. A pioneer in the field of positive psychology, Seligman (2002) conceptualized the three core components of happiness as positive emotion, engagement in life activities, and meaning of life. He later added two more components to formulate the PERMA model of happiness which is made up of Positive emotion, Engagement, Relationship, Meaningfulness and Accomplishment. Another researcher defined the concept of individual happiness as the degree to which a person positively evaluates the overall quality of life-as-a-whole, reflecting how much a person likes the life he/she leads. Happiness can be described as the subjective experience of joy and contentment, with a sense of positive well-being that life is good, meaningful, and worthwhile. She further revealed that happiness has a set-point which determines only 50 percent of happiness whereas a mere 10 percent can be attributed to differences in life

circumstances or situations. And the remaining 40 percent of our capacity to achieve happiness lies within our power to change; emphasizing on the importance of how much of our happiness is within our own control.

Age seemed to play an important role in examining the level of happiness across age groups. Existing literature showed that there are three basic trends of relationship between age and happiness: the first trend is the U-curve relationship between age and happiness; the second trend is the inverted U-curve relationship between age and happiness, and the third trend is the linear relationship between age and happiness, considering that there are different tools of happiness measurement and the age differentiation may vary to some extent across researches. In the present study, happiness across three age groups was examined to test whether the aforementioned three trends of relationships between happiness and age stands true in the Indian context, by using three age groups of late adolescents, young adults and elderly, the age differentiation of which is derived from Erikson's (1950) psychosocial developmental stages, and Newman and Newman's (1991) classification of life stages and associated developmental tasks. Further, happiness across age groups was examined to study if the significant difference on happiness remains significant after controlling self-esteem, stress, personality, life satisfaction, and social relationship. In addition, the relationship between happiness and socio-demographic variables, such as gender, religion, location of residence, marital status, family type, education, occupation, and income, and the significant effect of selected socio-demographic variables on happiness were also examined.

### **6.1.2. Statement of the Problem**

The statement of the problem in present study is “*Are older people happier than younger people? A psychological inquiry*”

### **6.1.3. Objectives**

The research objectives of the present study are briefly outlined as follows:

**O1:** To examine happiness across three age groups i.e., late adolescents, young adults and elderly.

**O2:** To examine the relationship between happiness and self-esteem, stress, personality, life satisfaction, and social relationship across three age groups i.e., late adolescents, young adults and elderly.

**O3:** To study happiness across three age groups (i.e., late adolescents, young adults and elderly) after controlling self-esteem, stress, personality, life satisfaction, and social relationship.

**O4:** To study gender differences of happiness across three age groups i.e., late adolescents, young adults and elderly.

**O5:** To study the relationship between happiness and socio-demographic variables across three age groups i.e., late adolescents, young adults and elderly.

**O6:** To evaluate the main effect of selected socio-demographic variables on happiness across three age groups i.e., late adolescents, young adults and elderly.

#### **6.1.4. Hypotheses**

Based on the objectives and review of existing literature, following hypotheses were framed:

H1: There will be significant difference in happiness across late adolescents, young adults and elderly.

H2: Happiness will be positively related with self-esteem across late adolescents, young adults and elderly.

H3: Happiness will be negatively related with stress across late adolescents, young adults and elderly.

H4: Happiness will be positively correlated with openness, conscientiousness, extraversion, agreeableness, but negatively correlated with neuroticism across late adolescents, young adults and elderly.

H5: Happiness will be positively related with life-satisfaction across late adolescents, young adults and elderly.

H6: Happiness will be positively related with social relationship across late adolescents, young adults and elderly.

H7: There will be significant difference in happiness across late adolescents, young adults and elderly after controlling self-esteem, stress, personality dimensions, life satisfaction, and social relationship.

H8: Male late adolescents will be happier than female late adolescents.

H9: Male young adults will be happier than female young adults.

H10: Male elderly will be higher happier than female elderly.

H11: Happiness will be significantly and positively related with socio-demographic variables across late adolescents, young adults and elderly.

H12: There will be significant effect of selected socio-demographic variables on happiness across late adolescents, young adults and elderly.

### **6.1.5. Methodology**

The present study was a quantitative research study, using cross-sectional study design to examine happiness across three age groups- late adolescents, young adults and elderly. Random sampling method was used for drawing the samples of the present study.

#### **6.1.5.1. Population**

Students in Govt. Senior Secondary Schools and B.Ed. Colleges, research scholars at Manipur University, and pensioners registered in pensioner's association or organization at Imphal (Manipur) constituted the population of the present study.

#### **6.1.5.2. Sample**

The present study was divided into two studies- Study I and Study II. Study I was conducted to check the reliability and item-total correlation of the happiness measures and control variable measures to find out if they have adequate psychometric properties to be deemed fit for use in the main study (Study II). Total sample compromised of 450 individuals (150 in each age group). The inclusion criteria and exclusion criteria of the sample are given as follows:

***Inclusion Criteria:***

1. Age Range:
  - a) Late Adolescents in age of 16-18 years
  - b) Young Adults in age of 25-40 years
  - c) Elderly in the age of 60 years and above
2. Gender: Male and Female
3. Late adolescents, young adults and elderly who were willing to give informed consent.
4. Late adolescents, young adults and elderly who were educated (tenth standard and above).
5. Late adolescents and young adults who were having source of pocket money or scholarship.
6. Elderly who were retired from any service.
7. Elderly who were having any source of income (including pension).
8. Elderly who were living with their spouse at home.

***Exclusion Criteria:***

1. Person with any major physical or mental illness.
2. Elderly with cognitive deficits.
3. Participants who could not give informed consent.
4. Participants who left during data collection.



5. Middle adult age range of 41-59 years and young adult age range of 19-24 years, was excluded in the present study considering the limited time, labor and financial aspects.

### **Ethical Considerations**

1. Participation was voluntary and anonymous.
2. All participants were assured of confidentiality and were also informed to assert this right to withdraw at any time.
3. All the personal information of the participants has been locked in their respective files and was assessed only by the researcher.
4. The participants' details will be destroyed few years after the study.

### **6.1.5.3. Tools Used**

Consent form was used to obtain declaration of consent and voluntary participation of the sample. The scales used in the present study are as follows:

- *Semi-Structured Performa (Self, 2015)*: It was developed to extract socio-demographic information of the samples such as age, gender, religion, residence, marital status, family type, education, occupation, and monthly income.
- *Oxford Happiness Questionnaire (Hills & Argyle, 2002)*: This scale was used to measure personal happiness. It has 29 items scored on uniform six-point Likert scale, and the score ranges from 29 to 174.
- *Subjective Happiness Scale-Revised (Adapted from Lyubomirsky & Lepper, 1999)*: It was employed to measure the general happiness level. It originally has four items, but was later revised with addition of four similar items to improve its reliability and the score ranges from 8 to 56, with higher score indicating greater happiness.

- *Rosenberg Self-Esteem Scale (Rosenberg, 1965)*: This scale has ten items which measure the global self-worth by measuring both positive and negative feelings about the self. The score ranges from 0 to 30, and greater score signify higher self-esteem.
- *Perceived Stress Scale (Cohen & Williamson, 1988)*: This measures the degree to which situations in one's life are perceived as stressful. It has fourteen items scored on five-point scale ranging from "almost never" to "very often" and the score ranges from 0 to 56.
- *Big Five Inventory (John & Srivastava, 1999)*: This scale consists of forty-four items to measure five dimensions of personality i.e. Openness (10 items), Conscientiousness (9 items), Extraversion (8 items), Agreeableness (9 items), and Neuroticism (8 items). All the items are scored on five-point scale ranging from "disagree strongly" to "agree strongly". The score range for Openness is 10 to 50. Similarly, score range for Conscientiousness, Extraversion, Agreeableness and Neuroticism is 9 to 45, 8 to 40, 9 to 45 and 8 to 40 respectively.
- *Satisfaction with Life Scale (Diener et al., 1985)*: The SWLS consists of five items which measure the individual's evaluation of satisfaction with life in general. It has 5 items scored on 7 point Likert scale and score ranges from 5 to 35. A score of 20 represents the neutral point on the scale, and scores above 20 signify satisfaction whereas score below 20 signify dissatisfaction with life.
- *Positive Relationship with Others Scale (Ryff, 1989)*: This scale consists of fourteen items scored on six-point format ranging from "strongly disagree" (1) to "strongly agree" (6). The score can range from 14 to 84, with high score indicating warm, satisfying relationships with others whereas low score indicates difficult interpersonal relationships.

#### **6.1.5.4. Procedure for Data Collection**

Data were collected from govt. senior secondary schools, B.Ed. colleges and Manipur University students, and pensioners registered in pensioner's association/organization for late adolescents, young adults and elderly respectively. Prior permission was taken from the respective school or college Principals, and Head of Departments at university for data collection. Similarly for elderly age group, organization's president/general secretaries were contacted to approach the pensioners for data collection. Necessary information and informed consent were obtained and questionnaires were administered after careful examination and scrutiny. Data collected were carefully checked and scored for analysis of result.

#### **6.1.5.5. Statistical Analysis**

Data collected were decoded in SPSS 21 version for statistical analysis. Statistical tools such as descriptive statistics (Mean and SD), Pearson's correlation, independent sample t-test and inferential statistics, using multivariate analysis of ANOVA and MANCOVA were used for testing of hypothesis framed in the present study.

#### **6.1.6. Major Findings**

Major findings of the present study are given in the following sub-sections:

##### **I. Happiness across three age groups i.e., late adolescents, young adults and elderly**

- There was significant difference in happiness across the three age groups. It was observed that on both the measures of happiness i.e. OHQ and SHS-R, elderly reported higher happiness score than young adults and late adolescent; young adults reported higher happiness score than late adolescents. This confirms the linear

relationship between happiness and age. In other words, happiness also increases along with increase in age.

## **II. Relationship between happiness and self-esteem, stress, personality dimensions, life satisfaction, and social relationship across three age groups**

- Happiness was significantly and positively related with self-esteem across late adolescents, young adults and elderly.
- Happiness was significantly and negatively related with stress across late adolescents, young adults and elderly.
- Happiness was significantly and positively related with openness to experience across late adolescents, young adults and elderly.
- Happiness was significantly and positively related with conscientiousness across late adolescents, young adults and elderly.
- Happiness was significantly and positively related with agreeableness across late adolescents, young adults and elderly.
- Happiness was significantly and positively related with extraversion across late adolescents, young adults and elderly.
- Happiness was significantly and negatively related with neuroticism across late adolescents, young adults and elderly.
- Happiness was significantly and positively related with life satisfaction across late adolescents, young adults and elderly.
- Happiness was significantly and positively related with social relationship across late adolescents, young adults and elderly.

### **III. Happiness across three age groups (late adolescents, young adults and elderly) after controlling self-esteem, stress, personality dimensions, life satisfaction, and social relationship**

- There was significant difference in happiness across the three age groups i.e. late adolescents and young adults after controlling for self-esteem, stress, personality, life satisfaction and social relationship. This showed that none of these variables significantly controls happiness across the age groups.

### **IV. Gender differences of happiness across three age groups i.e., late adolescents, young adults and elderly**

- Female late adolescents were happier than male late adolescents. On applying t-test, the mean difference was found to be significant on only one measure of happiness i.e. SHS-R.
- Female young adults were happier than male young adults. These mean differences on OHQ and SHS-R were found to be not significant when t-test was applied.
- Male elderly were happier than female elderly. These mean differences on OHQ and SHS-R were found to be significant when t-test was applied.

### **V. Relationship between happiness and socio-demographic variables across three age groups**

- Happiness was significantly and positively related with age across late adolescents, young adults and elderly.
- Happiness was not significantly and negatively related with gender across late adolescents, young adults and elderly on OHQ, whereas happiness was not

significantly related with gender across late adolescents, young adults and elderly on SHS-R.

- Happiness was significantly and negatively related with religion across late adolescents, young adults and elderly.
- Happiness was significantly and positively related with location of residence across late adolescents, young adults and elderly on OHQ, whereas happiness was not significantly and negatively related with location of residence across late adolescents, young adults and elderly on SHS-R.
- Happiness was significantly and negatively related with marital status across late adolescents, young adults and elderly.
- Happiness was positively related with family type across late adolescents, young adults and elderly on OHQ, whereas happiness was significantly and positively related with family type of residence across late adolescents, young adults and elderly on SHS-R.
- Happiness was significantly and positively related with education across late adolescents, young adults and elderly.
- Happiness was significantly and positively related with occupation across late adolescents, young adults and elderly.
- Happiness was significantly and positively related with income across late adolescents, young adults and elderly.

## **VI. Main effect of selected socio-demographic variables and happiness across late adolescents, young adults and elderly**

- Only education was found to have significant effect on happiness (as measured on OHQ), whereas age, occupation and income did not have significant effect on happiness. None of the significantly, positively related socio-demographic variables i.e. age, education, occupation, and income were found to have significant effect on happiness (as measured on SHS-R).

#### **6.1.7. Delimitations**

The present study provided an exploratory investigation of happiness across three age groups using self-esteem, stress, personality dimensions, life satisfaction, and social relationship as control variables. Before drawing conclusions, there is a need to highlight some delimitations of this study which needs to be considered in externalizing the conclusions to general population. The following delimitations were made for the study:

- The first delimitation of the study was sample size. The findings would be based on results obtained from a sample of only 450 respondents.
- The second delimitation of this study was only participants from schools, colleges and Manipur University, retired pensioner's association/organization at Imphal, Manipur was included.
- The sample was biased in terms of education and income context, since those having basic education (matriculate) and personal income were considered.
- The findings of the present study are in the context of students, research scholars and pensioners who live in the state of Manipur.
- The study was delimited to five control variables: Self-esteem, Stress, Personality Dimensions, Life Satisfaction, and Social Relationship.

- This study was also delimited with reference to tools used and hence the interpretation of results was governed by the theoretical considerations underlying the test. Oxford Happiness Questionnaire (Hills & Argyle, 2002), Subjective Happiness Scale- Revised (Adapted from Lyubomirsky & Lepper, 1999), Rosenberg Self-Esteem Scale (Rosenberg, 1965), Perceived Stress Scale (Cohen & Williamson, 1988), Big Five Inventory (John & Srivastava, 1999), Satisfaction with Life Scale (Diener et al., 1985), Positive Relationship with Others Scale (Ryff, 1989) were used for data collection.
- The present study was delimited to statistical analysis technique of correlation, t-test, ANOVA and MANCOVA.

Despite these delimitations, the present study enhances our knowledge on happiness across age groups in relation to self-esteem, stress, personality dimensions, life satisfaction, and social relationship.

## **6.2. CONCLUSION**

The main findings of the present research confirmed that there is significant difference in happiness across the three age groups on both happiness measures; elderly age group reported highest happiness score than young adults and late adolescents, young adults reported higher happiness than late adolescents, which leads to the conclusion that older people are happier than younger people. This is suggestive of linear relationship between age and happiness i.e. as age increase, happiness will also increase. Happiness was positively associated with self-esteem, openness to experience, conscientiousness, extraversion, agreeableness, life-satisfaction, social relationship, but negatively associated with stress and neuroticism. On further analysis, it was found that happiness



across the three age groups remains significant after controlling self-esteem, stress, personality dimensions of openness to experience, conscientiousness, extraversion, agreeableness, neuroticism, life satisfaction, and social relationship. Females were happier than male in late adolescents and young adults age group, whereas male elderly reported greater happiness female elderly. Happiness was found to be significantly and positively correlated with socio-demographic variables of age, education, occupation, and income, out of which only education was found to have significant effect on happiness. All these findings contribute to knowledge generation on happiness across age groups, which would make a useful reference tool in happiness studies.

#### **6.2.1. IMPLICATIONS**

- A major contribution of this study is capturing the happiness judgment of the population which is vital to policy makers and stakeholders. The results obtained in the present study, might be useful to strengthen or improve public policies aimed at increasing the well-being or happiness index at large, and for framing effective strategies to obtain optimal happiness.
- Happiness studies have implicated that optimal happiness provides tremendous benefit and other useful resources as it makes people more likely to enjoy superior quality work, greater creativity, increased productivity, and higher income (Estrada, Isen, & Young, 1994; George, 1995; Staw, Sutton, & Pelled, 1995).
- Some of the health benefits of happiness include stronger immune system (Dillon, Minchoff, & Baker, 1985; Stone et al., 1994) and greater longevity (Danner, Snowdon, & Friesen, 2001; Maruta et al., 2000). The significant positive relationship between social relationship and happiness found in the present study would imply that

happiness makes people more likely to enjoy larger social rewards, have more friends, and enjoy stronger social support and richer social interactions (Berry & Hansen, 1996; Marks & Fleming, 1999; Okun, Stock, Haring & Witter, 1984).

- Studies on happiness provide valuable insights on what basic rules can be set to raise or maintain the happiness/satisfaction of individuals. Frey and Stutzer (2012) pointed out that in order to gain accurate information on the level of reported happiness, research questions need to be formulated in such a way that they are related to reported subjective well-being in a comparative manner. Stakeholders and policy makers can derive a happiness indicator based on the type of assessment tools used in the present study to measure the level of reported happiness.
- The positive association between happiness and personality dimensions such as extraversion, openness to experience, conscientiousness, and agreeableness found in this study imply that happy people are more likely to be more emotionally healthy (Diener, 1984; Menninger, 1930; Taylor & Brown, 1988), more active and have greater energy and flow (Csikszentmihalyi & Wong, 1991; Mishra, 1992; Watson, Clark, McIntyre, & Hamaker, 1992). At the same time, they are also more likely to exhibit greater self-control and coping abilities (Aspinwall, 1998; Carver et al., 1993; Chen et al., 1996; Fredrickson & Joiner, 2002).

Despite many useful implications and results obtained, the present study was subjected to some limitations which need to be considered. Some of the limitations of the present study are given as below:

- In the present investigation, only three age groups: late adolescents (16-18 years), young adults (25-40 years) and elderly (60 years and above) were taken into

consideration. Hence, the results derived from this study cannot be true for other age groups.

- This study was limited to cross-sectional study design and random sampling.
- Due to the paucity of time, this study was restricted to sample from state of Manipur only.
- It could have been more interesting and useful if the representative sample of different parts of the state and outside the state would have been selected.

None of the above-mentioned limitations is severe enough to deteriorate the standard and worth of this study. However, some prominent information obtained from the present study can be taken into consideration in future researches.

### **6.3. SUGGESTIONS FOR FURTHER RESEARCH**

Happiness and age, and variables such as self-esteem, stress, personality dimensions, life satisfaction, and social relationship are major areas of research in positive clinical psychology realm and the findings of the present study yielded interesting results in this regard. No research would be complete without initiating the vigour and areas to work on in future researches. The following recommendations/suggestions can be considered for further research:

- Similar study on happiness can be conducted across different age groups, which could not be explored in this study, as larger sample size might be able to provide more stable results.
- Measurement tools, such as open-ended questionnaire and interview technique can also be used for data collection, to reduce the possibility of biased response on self-report measure.

- A cross-cultural study on happiness may be conducted on sample across different North-Eastern states of India, such as Assam, Arunachal Pradesh, Nagaland, Meghalaya, Mizoram, etc.
- Happiness studies can incorporate the comparative analysis across important socio-demographic character such as different categories of income.
- Future research can aim to improvise happiness level and generate plausible alternatives/methods to optimally maintain happiness across life span.
- Psychological measurement of happiness can be conducted using various measurement tools, such as Single Item Happiness Scale, Orientation to Happiness Scale, Pemberton Happiness Index etc. in future research
- A comparison between quantitative and qualitative examination (i.e. mixed method) of happiness might be able to provide better understanding on happiness.
- Other psychosocial and cultural aspects of happiness across different age groups, apart from self-esteem, stress, personality dimensions, life satisfaction, and social relationship can also be explored which might be able to throw light on the factors associated with obtaining or maintaining happiness.

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# **APPENDICES**

## **APPENDIX I: Informed Consent Form**

### **INFORMED CONSENT FORM**

This consent form is for a research study entitled “*Are older people happier than younger people? A psychological inquiry*” conducted by *Ms. Moirangthem Sandhyarani Devi*, PhD Scholar, Department of Psychology, Sikkim University in partial fulfillment for the award of Ph.D. Degree. The responses provided by you in this study will be valuable for research and academic purpose. Please note that your participation is voluntary and you have the freedom to choose to participate or refuse or withdraw your consent without facing any penalty. All the information provided by you will be kept strictly confidential and in safe custody. Any personal information such as name, identity etc. will not appear in any part of this study. If you are willing to participate, kindly sign your name in the space provided below to indicate that you have read this document and have understood the contents and that you are willing to participate in this study.

**Declaration:** I declare that I have read and understood the above information and hereby give my consent to participate in the study.

**Signature of the participant**

**APPENDIX II: Semi-Structured Performa**

**Semi Structured Performa**

1. Name :.....
2. Age :.....
3. Gender  Male  Female
4. Religion :.....
5. Residence  Rural  Urban
6. Marital Status  Married  Unmarried
7. Type of Family  Nuclear  Joint
8. Educational Qualification :.....
9. Occupation :.....
10. Monthly/Personal Income :.....

### APPENDIX III: OHQ (Oxford Happiness Questionnaire)

*Instruction:* Please read the following statements carefully, some of the questions are phrased positively and others negatively. Don't take too long over individual questions as there is no "right" or "wrong" answers. The first answer that comes into your mind is probably the right one for you. If you find some of the questions difficult, please give the answer that is true for you in general or for most of the time. Please indicate how much you agree or disagree with each statement by entering a number in the blank after each statement, according to the following scale:

- 1 = strongly disagree**
- 2 = moderately disagree**
- 3 = slightly disagree**
- 4 = slightly agree**
- 5 = moderately agree**
- 6 = strongly agree**

| <b>Sl. No.</b> | <b>Statement</b>                                     | <b>Response</b> |
|----------------|--|-----------------|
| 1.             | I don't feel particularly pleased with the way I am. |                 |
| 2.             | I am intensely interested in other people.           |                 |
| 3.             | I feel that life is very rewarding.                  |                 |
| 4.             | I have very warm feelings towards almost everyone.   |                 |
| 5.             | I rarely wake up feeling rested.                     |                 |
| 6.             | I am not particularly optimistic about the future.   |                 |
| 7.             | I find most things amusing.                          |                 |
| 8.             | I am always committed and involved.                  |                 |



| Sl. No. | Statement  | Response |
|---------|--|----------|
| 9.      | Life is good.  |          |
| 10.     | I do not think that the world is a good place.                       |          |
| 11.     | I laugh a lot.   |          |
| 12.     | I am well satisfied about everything in my life.                     |          |
| 13.     | I don't think I look attractive.                                     |          |
| 14.     | There is a gap between what I would like to do and what I have done. |          |
| 15.     | I am very happy.   |          |
| 16.     | I find beauty in some things.  |          |
| 17.     | I always have a cheerful effect on others.                           |          |
| 18.     | I can fit in (find time for) everything I want to.                   |          |
| 19.     | I feel that I am not especially in control of my life.               |          |
| 20.     | I feel able to take anything on.                                     |          |
| 21.     | I feel fully mentally alert.   |          |
| 22.     | I often experience joy and elation (happiness).                      |          |
| 23.     | I don't find it easy to make decisions.                              |          |
| 24.     | I don't have a particular sense of meaning and purpose in my life.   |          |
| 25.     | I feel I have a great deal of energy.                                |          |
| 26.     | I usually have a good influence on events.                           |          |
| 27.     | I don't have fun with other people.                                  |          |
| 28.     | I don't feel particularly healthy.                                   |          |
| 29.     | I don't have particularly happy memories of the past.                |          |

**APPENDIX IV: SHS-R (Subjective Happiness Scale-Revised)**

*Instruction:* For each of the following statements and/or questions, please circle the point on the scale that you feel is most appropriate in describing you.

1. In general, I consider myself:

|                         |   |   |   |   |   |                     |
|-------------------------|---|---|---|---|---|---------------------|
| 1                       | 2 | 3 | 4 | 5 | 6 | 7                   |
| not a very happy person |   |   |   |   |   | a very happy person |

2. Compared to most of my peers (friends), I consider myself:

|                         |   |   |   |   |   |                     |
|-------------------------|---|---|---|---|---|---------------------|
| 1                       | 2 | 3 | 4 | 5 | 6 | 7                   |
| not a very happy person |   |   |   |   |   | a very happy person |

3. Compared to most of my family members, I consider myself:

|                         |   |   |   |   |   |                     |
|-------------------------|---|---|---|---|---|---------------------|
| 1                       | 2 | 3 | 4 | 5 | 6 | 7                   |
| not a very happy person |   |   |   |   |   | a very happy person |

4. Compared to most of my neighbours, I consider myself:

|                         |   |   |   |   |   |                     |
|-------------------------|---|---|---|---|---|---------------------|
| 1                       | 2 | 3 | 4 | 5 | 6 | 7                   |
| not a very happy person |   |   |   |   |   | a very happy person |

5. Compared to most of my community people, I consider myself:

|                         |   |   |   |   |   |                     |
|-------------------------|---|---|---|---|---|---------------------|
| 1                       | 2 | 3 | 4 | 5 | 6 | 7                   |
| not a very happy person |   |   |   |   |   | a very happy person |

6. Compared to most of my relatives, I consider myself:

|                   |   |   |   |   |   |            |
|-------------------|---|---|---|---|---|------------|
| 1                 | 2 | 3 | 4 | 5 | 6 | 7          |
| less happy person |   |   |   |   |   | more happy |

7. Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?

|            |   |   |   |   |   |              |
|------------|---|---|---|---|---|--------------|
| 1          | 2 | 3 | 4 | 5 | 6 | 7            |
| not at all |   |   |   |   |   | a great deal |

8. Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?

|            |   |   |   |   |   |              |
|------------|---|---|---|---|---|--------------|
| 1          | 2 | 3 | 4 | 5 | 6 | 7            |
| not at all |   |   |   |   |   | a great deal |

## APPENDIX V: RSES (Rosenberg Self-Esteem Scale)

*Instruction:* Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement with the following:

- 4=Strongly Agree**
- 3=Agree**
- 2=Disagree**
- 1=Strongly Disagree**

| Sl. No. | Statement   | Response |
|---------|---|----------|
| 1.      | On the whole I am satisfied with myself.                                    |          |
| 2.      | At times I think I am no good at all.                                       |          |
| 3.      | I think that I have a number of good qualities.                             |          |
| 4.      | I am able to do things as well as most other people.                        |          |
| 5.      | I feel I do not have much to be proud of.                                   |          |
| 6.      | I certainly feel useless at times.  |          |
| 7.      | I feel that I am a person of worth, at least on an equal plane with others. |          |
| 8.      | I wish I could have more respect for myself.                                |          |
| 9.      | All in all, I am inclined to feel that I am a failure.                      |          |
| 10.     | I take a positive attitude toward myself.                                   |          |

## APPENDIX VI: PSS (Perceived Stress Scale)

*Instruction:* The questions in this scale ask you about your feelings and thoughts during THE LAST MONTH. In each statement, please indicate your response by placing the number which represents HOW OFTEN you felt or thought a certain way.

- 0= Almost Never**
- 1=Never**
- 2= Fairly Sometimes**
- 3= Often**
- 4=Very Often**

| <b>Sl. No.</b> | <b>Statement</b>   | <b>Response</b> |
|----------------|--|-----------------|
| 1.             | In the last month, how often have you been upset because of something that happened unexpectedly?                                    |                 |
| 2.             | In the last month, how often have you felt that you were unable to control the important things in your life?                        |                 |
| 3.             | In the last month, how often have you felt nervous and “stressed”?   |                 |
| 4.             | In the last month, how often have you dealt successfully with day to day problems and annoyances?                                    |                 |
| 5.             | In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life? |                 |
| 6.             | In the last month, how often have you felt confident about your ability to handle your personal problems?                            |                 |

| <b>Sl. No.</b> | <b>Statement</b>   | <b>Response</b> |
|----------------|--|-----------------|
| 7.             | In the last month, how often have you felt that things were going your way?                                      |                 |
| 8.             | In the last month, how often have you found that you could not cope with all the things that you had to do?      |                 |
| 9.             | In the last month, how often have you been able to control irritations in your life?                             |                 |
| 10.            | In the last month, how often have you felt that you were on top of things?                                       |                 |
| 11.            | In the last month, how often have you been angered because of things that were outside your control?             |                 |
| 12.            | In the last month, how often have you found yourself thinking about things that you have to accomplish?          |                 |
| 13.            | In the last month, how often have you been able to control the way you spend your time?                          |                 |
| 14.            | In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? |                 |

## APPENDIX VII: BFI (Big Five Inventory)

*Instruction:* Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with the following statements.

- 1=Disagree strongly**
- 2= Disagree a little**
- 3= Neither agree nor disagree**
- 4=Agree a little**
- 5= Agree strongly**

| Sl. No. | I see Myself as Someone Who...         | Response |
|---------|--|----------|
| 1.      | Is talkative                           |          |
| 2.      | Tends to find fault with others        |          |
| 3.      | Does a thorough job                    |          |
| 4.      | Is depressed, blue                     |          |
| 5.      | Is original, comes up with new ideas   |          |
| 6.      | Is reserved                            |          |
| 7.      | Is helpful and unselfish with others   |          |
| 8.      | Can be somewhat careless               |          |
| 9.      | Is relaxed, handles stress well        |          |
| 10.     | Is curious about many different things |          |
| 11.     | Is full of energy                      |          |
| 12.     | Starts quarrels with others            |          |

| Sl. No. | I see Myself as Someone Who...             | Response |
|---------|--|----------|
| 13.     | Is a reliable worker                       |          |
| 14.     | Can be tense                               |          |
| 15.     | Is ingenious, a deep thinker               |          |
| 16.     | Generates a lot of enthusiasm              |          |
| 17.     | Has a forgiving nature                     |          |
| 18.     | Tends to be disorganized                   |          |
| 19.     | Worries a lot                              |          |
| 20.     | Has an active imagination                  |          |
| 21.     | Tends to be quiet                          |          |
| 22.     | Is generally trusting                      |          |
| 23.     | Tends to be lazy                           |          |
| 24.     | Is emotionally stable, not easily upset    |          |
| 25.     | Is inventive                               |          |
| 26.     | Has an assertive personality               |          |
| 27.     | Can be cold and aloof                      |          |
| 28.     | Perseveres until the task is finished      |          |
| 29.     | Can be moody                               |          |
| 30.     | Values artistic, aesthetic experiences     |          |
| 31.     | Is sometimes shy, inhibited                |          |
| 32.     | Is considerate and kind to almost everyone |          |
| 33.     | Does things efficiently                    |          |



| <b>Sl. No.</b> | <b>I see Myself as Someone Who...</b>         | <b>Response</b> |
|----------------|---|-----------------|
| 34.            | Remains calm in tense situations              |                 |
| 35.            | Prefers work that is routine                  |                 |
| 36.            | Is outgoing, sociable                         |                 |
| 37.            | Is sometimes rude to others                   |                 |
| 38.            | Makes plans and follows through with them     |                 |
| 39.            | Gets nervous easily                           |                 |
| 40.            | Likes to reflect, play with ideas             |                 |
| 41.            | Has few artistic interests                    |                 |
| 42.            | Likes to cooperate with others                |                 |
| 43.            | Is easily distracted                          |                 |
| 44.            | Is sophisticated in art, music, or literature |                 |

## APPENDIX VIII: SWLS (Satisfaction with Life Scale)

*Instruction:* There are five statements that you may agree or disagree with. Using the given below scale of 1 to 7, please indicate to what extent to which you agree or disagree with each item by placing an appropriate number on the line preceding that item. Please be open and honest while giving your response.

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

| <b>Sl. No.</b> | <b>Statement</b>   | <b>Response</b> |
|----------------|--|-----------------|
| 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. |                 |

## APPENDIX IX: PROS (Positive Relation with Others Scale)

*Instruction:* Given below is a list of statements which describes about social relationship.

Please carefully read all the statements and give your response by indicating a number against each statement according to the following:

- 1=strongly disagree**
- 2=moderately disagree**
- 3=slightly disagree**
- 4=slightly agree**
- 5=moderately agree**
- 6=strongly agree**

| <b>Sl. No.</b> | <b>Statement</b>  | <b>Response</b> |
|----------------|---|-----------------|
| 1.             | Most people see me as loving and affectionate.  |                 |
| 2.             | Maintaining close relationships has been difficult and frustrating for me.                      |                 |
| 3.             | I often feel lonely because I have few close friends with whom to share my concerns.            |                 |
| 4.             | I enjoy personal and mutual conversations with family members or friends.                       |                 |
| 5.             | It is important to me to be a good listener when close friends talk to me about their problems. |                 |
| 6.             | I don't have many people who want to listen when I need to talk.                                |                 |

| <b>Sl. No.</b> | <b>Statement</b>   | <b>Response</b> |
|----------------|--|-----------------|
| 7.             | I feel like I get a lot out of my friendships.                                     |                 |
| 8.             | It seems to me that most other people have more friends than I do.                 |                 |
| 9.             | People would describe me as a giving person, willing to share my time with others. |                 |
| 10.            | I have not experienced many warm and trusting relationships with others.           |                 |
| 11.            | I often feel like I'm on the outside looking in when it comes to friendships.      |                 |
| 12.            | I know that I can trust my friends, and they know they can trust me.               |                 |
| 13.            | I find it difficult to really open up when I talk with others.                     |                 |
| 14.            | My friends and I sympathize with each other's problems.                            |                 |