FOSTERING CHARACTER STRENGTH AND WELLBEING OF ADOLESCENTS

A Thesis

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(Psychology)

By

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DECLARATION

I hereby declare that the thesis entitled "Fostering Character Strength and Wellbeing of Adolescents" has been prepared and submitted by me under the guidance of **Dr. Manish Kumar Verma,** Associate Professor, Department of Psychology, Lovely Professional University, Phagwara, Punjab as per the requirement for the award of the degree of Doctor of Philosophy (Ph.D.) in Psychology is entirely my original work and ideas and references are duly acknowledged. It does not contain any work that has been submitted for the award of any other degree or diploma of any university.

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CERTIFICATE

This to certify that **Ms. Asha Mathew** has completed Doctor of Philosophy (Ph.D.) in Psychology thesis entitled "Fostering Character Strength and Wellbeing of Adolescents" is a bonafide work carried out by her under my supervision and guidance. To the best of my knowledge, the present work is the result of her original investigation and study. No part of the thesis has ever been submitted to any other University or Institute for the award of any degree or diploma.

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ABSTRACT

Adolescence is the period of transition from childhood to adulthood. Physical, emotional, and psychological changes will take place during this stage of development. Character strengths are personality traits of an individual, and they are reflected in our thoughts, feelings, cognition, actions, and behavior. All of us possess character strengths and those groups of character strengths result in virtues. These character strengths and wellbeing are interrelated. Wellbeing leads to flourishing and a better life. This study focuses on fostering or developing the wellbeing and character strength of adolescents through an intervention program.

The objectives of the present study are to study the character strength and wellbeing of adolescents and to understand the character strength and wellbeing of adolescents based on demographic variables. The main objective of the study is to develop and study the effectiveness of PERMA (Positive Emotion, Engagement, Relationship, Meaning, and Accomplishment) based character strength intervention on wellbeing and character strength of adolescents. The study was conducted with 154 adolescents of eighth grade from Kerala. They were allotted to the experimental group and the control group, both the groups are assessed using pre-test and post-test. PERMA-based character strength intervention is developed and the experimental group underwent the program. Pre-test and post-test data are collected using the VIA Inventory of Strengths for Youth (VIA-Youth) by Christopher Peterson and Nansook Park and PERMA Profiler by Julie Butler and Margaret L. Kern. Demographic scales are prepared and used to collect demographic data. Responses collected using questionnaires are analyzed using statistical measures such as descriptive statistics, Analysis of Variance, and t-test.

Findings show that the topmost strengths of adolescents include strengths such as spirituality, appreciation of beauty and excellence, gratitude, love, hope, forgiveness, and kindness. The lowermost strengths or lesser strengths include prudence, humility, perspective, perseverance, honesty, self-regulation, and leadership. They have comparatively higher scores on the relationship element of wellbeing and scored comparatively low on accomplishment.

Findings on demographic data showed that the topmost strengths of male participants include strengths such as spirituality, appreciation of beauty and excellence, gratitude, love, hope, forgiveness, humor, and lesser strengths include prudence, perspective, self-regulation, humility, perseverance, honesty, and leadership respectively. Similarly, the top most strengths of female participants as a group include strengths such as appreciation of beauty and excellence, spirituality, gratitude, love, hope, kindness, and zest and the lesser strength of the group includes honesty, humility, prudence, perseverance, perspective, self-regulation, and leadership. The topmost strength is spirituality and the least strength is leadership. Except for strengths such as perspective and self-regulation, there is no significant difference between character strengths of male and female participants as a group. Except for relationship and positive emotion dimensions of wellbeing, where, female participants scored higher on both dimensions, there is no significant difference between elements such as engagement, meaning, and accomplishment.

Except for strengths such as love and prudence, there is no significant difference between characters strengths of adolescents from joint families and the nuclear family. Adolescents who belong to the joint family have higher mean scores on strengths such as appreciation of beauty and excellence, spirituality, gratitude, hope, and love as well as lower strengths are prudence, perseverance, perspectives, honesty, self-regulation, humility, and leadership. Similarly, the topmost strengths of adolescents from nuclear families include strengths such as spirituality, appreciation of beauty and excellence, love, gratitude, and forgiveness as well as strengths which lie on the bottom include humility, perspectives, honesty, prudence, self-regulation, perseverance, and leadership. Adolescents from joint family are having comparatively higher accomplishments and lower positive emotions than adolescents from nuclear families. Adolescent's from nuclear family has higher accomplishment and lower meaning dimensions of wellbeing.

Findings show that except for strengths such as curiosity, judgment, and love of learning there is no significant difference between character strengths of participants based on their religion.

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Adolescents belong to the Hindu religion's topmost strengths include the appreciation of beauty, gratitude, humor, hope, and love. And the lesser strengths include perspectives, perseverance, self-regulation, humility, and leadership. The topmost character strengths of participants who belong to the Christian religion include spirituality, appreciation of beauty and excellence, gratitude, love, and forgiveness. The lesser strengths are perspectives, perseverance, self-regulation, honesty, and leadership. Adolescents who belong to the Muslim religion have topmost strengths such as appreciation of beauty and excellence, love, spirituality, gratitude, and humor, and the lowest strengths such as curiosity, humility, perspectives, prudence, and leadership. Hindu, Christian, and Muslim adolescents have a higher score on the relationship dimension of wellbeing and a lower level of accomplishment. The mean wellbeing of participants who belong to the Christian religion on pre-test shows that the group has higher mean scores on relationship and lesser mean scores are for accomplishment. The mean wellbeing of participants belong to the Muslim religion on pre-test shows that the group has higher mean scores on relationship and lesser mean scores are for accomplishment. Adolescents belong to the Christian religion is having comparatively higher engagement and adolescents belong to Hindu religion is having comparatively higher accomplishment than adolescents belongs to other religions.

Results demonstrated that the topmost character strength of the firstborn is spirituality, appreciation of beauty and excellence, gratitude, hope, and forgiveness. The lower strengths or weaker strengths with lesser mean score includes humility, perspective, self-regulation, honesty, and leadership. The topmost strengths of second-born include the appreciation of beauty and excellence, spirituality, love, gratitude, humor, and kindness, and the lowest include humility, self-regulation, perspective, perseverance, and leadership. Strengths with the highest mean for character strengths of third-born includes love, love of learning, curiosity, fairness, hope, and gratitude, and the strengths such as teamwork, leadership, perspective, and perseverance are the lesser strength of the group. First-born, second-born, and third-born adolescents have a comparatively higher level of relationship

element of wellbeing. Similarly, the firstborn and the third born have a lower level of accomplishment, while the second-born has a lower level of meaning.

Except for these strengths such as appreciation of beauty and excellence, forgiveness, humor, perseverance, kindness, spirituality and meaning, and element of wellbeing, there is no significant difference found between character strengths and elements of the wellbeing of participants based on their birth order.

Results revealed that the mean order of top most character strength of single child is the appreciation of beauty and excellence, gratitude, spirituality, hope, kindness, love of learning, fairness, and the lowest character strengths include perseverance, prudence, self-regulation, honesty, perspective, humility, and leadership. The topmost strengths of adolescents with one sibling include spirituality, appreciation of beauty and excellence, love, gratitude, hope, humor, and kindness and mean lowest strengths include humility, perspective, prudence, honesty, self-regulation, perseverance, and leadership. The topmost character strength of participants with two siblings includes the appreciation of beauty and excellence, love, spirituality, forgiveness, gratitude, judgment, and kindness. The lowermost strengths include prudence, humility, perseverance, honesty, self-regulation, leadership, and perspective. Character strengths of participants with three siblings which lies on the top include gratitude, love, humor, teamwork, zest, kindness, and spirituality and the lowest strengths include curiosity, honesty, perseverance, prudence, judgment, self-regulation, and humility.

The highest scored dimension of wellbeing is relationship and the lowest score is on positive emotion for a single child. Participants with one sibling have the comparatively highest score on the dimension of the relationship of wellbeing and accomplishment is having comparatively lower mean scores. Participants with two siblings are having a comparatively higher relationship and low accomplishment. Participants with three siblings scored comparatively high on the wellbeing dimension of relationship and low on accomplishment. There is no significant difference in character strengths and elements of the wellbeing of participants without siblings and with different numbers of siblings.

Adolescents in the experimental group are encouraged throughout the program to focus on learning, recognizing, developing, and reflecting on their strengths. Results demonstrated that there is a significant difference in character strengths such as appreciation of beauty and excellence, prudence, teamwork, fairness, forgiveness, gratitude, perseverance, leadership, humility, and zest after the intervention. While there is no significant difference in strengths such as bravery, love, creativity, curiosity, honesty, hope, humor, judgment, kindness, love of learning, perspective, self-regulation, social intelligence, and spirituality after intervention at a level of 0.05. There is a significant difference in PERMA elements of wellbeing such as positive emotions, engagement, relationship, meaning, and accomplishment of adolescents after the intervention.

Based on the Sig value at 0.05 level, strengths such as appreciation of beauty and excellence, teamwork, creativity, curiosity, fairness, forgiveness, perseverance, judgment, love of learning, perspective, self-regulation, and the zest has a significant difference between experimental and control group on post-test scores. All the elements of wellbeing have a significant difference at 0.05 level. The strengths such as bravery, love, prudence, gratitude, honesty, hope, humor, kindness, leadership, perspective, social intelligence, and spirituality don't have any significant differences between experimental and control groups on post-test scores.

Further analysis shows that the experimental group has a comparatively higher mean score than the control group on strengths such as appreciation of beauty and excellence, teamwork, creativity, curiosity, fairness, forgiveness, perseverance, judgment, love of learning, perspective, self-regulation, and zest as well as for all elements of wellbeing such as positive emotion, engagement, relationship and meaning on post-test.

This study is conducted in India. Findings from paired sample t-test of the experimental group on pre-test and post-test show that there is a significant difference in character strengths such as appreciation of beauty and excellence, prudence, teamwork, fairness, forgiveness, gratitude, perseverance, leadership, humility, and zest. And mean score of those strengths shows that those strengths have comparatively higher mean scores during post-test than mean scores on the pre-test. And there is a significant difference in

all elements of the wellbeing of the experimental group before and after intervention and it shows that the mean score on post-test is comparatively higher than the mean score on the pre-test.

Analysis was done using an independent sample t-test to find out a significant difference between experimental and control group on post-test shows that there is a significant difference in some of character strengths and elements of wellbeing on post-test. The results depicted that there is a significant difference in strengths such as appreciation of beauty and excellence, teamwork, creativity, curiosity, fairness, forgiveness, perseverance, judgment, love of learning, perspective, self-regulation, and zest. Similarly, there is a significant difference in all elements of wellbeing such as Positive Emotions, engagement, relationship, meaning, and accomplishment between the experimental group and control group on post-test. Results also demonstrated that the experimental group has comparatively higher mean scores on all the strengths which have significant differences on post-test such as appreciation of beauty and excellence, teamwork, creativity, curiosity, fairness, forgiveness, perseverance, judgment, love of learning, perspective, self-regulation, and zest. Similarly, the experimental group has comparatively higher mean scores on all the PERMA elements on post-test. Thus, this PERMA-based character strength intervention is effective in developing certain character strengths and developing the wellbeing of adolescents in the Indian context.

In the concluding chapter, the limitation and recommendations for future studies are emphasized. Adapting this intervention study will help the parents, schools, and adolescents to ensure the wellbeing and better living for adolescents. It's also recommended to make this intervention a part of the curriculum in schools for adolescent's wellbeing.

CHAPTER 1

INTRODUCTION

1.1 Overview

Adolescence is a significant period in life with major transitions. When a child grows towards adulthood biological, cognitive, social, emotional, and psychological changes happen. The focus of this study is to foster character strength and wellbeing among adolescents using the PERMA (Positive Emotions, Engagement, Relationship, Meaning, and Accomplishment) framework. Character strengths and virtues are a wide area of research in the field of positive psychology. Positive psychology helps an individual to find their underlying strengths for having better and positive functioning. It is both a scientific and applied approach. Thus, this research will be helpful to discover the character strength of adolescents and promote positive functioning through providing PERMA-based training on strengths to lead a positive life and to achieve wellbeing.

In this chapter, the researcher is introducing all the variables and various concepts in the study. The nature of people focusing on the study, i.e., adolescents, is described. Different concepts of positive psychology and interventions related to positive psychology are also introduced. One of the main concepts in this study, character strength, and the concept of wellbeing and its elements are introduced. Later in this chapter link between character strength and wellbeing and the importance of focusing on wellbeing and character strength through intervention and the need and significance of the study is described by the researcher.

1.2 Adolescence

"Adolescence is the period of transition between childhood and adulthood that involves biological, cognitive and socio-emotional changes" (Hurlock, 1981). The period of adolescence varies according to an individual's cultural and historical background. It is considered that the age range of adolescence is from 10-13 years to 18-20 years. Adolescence has a broader meaning. It includes mental, social, physical as well as emotional maturity. Changes and transitions during adolescence are not limited to biological growth; the development of societal roles also happens during this period (Sawyer et al., 2018). While some researchers classified adolescence from age

10 to 19, other researchers classified them as age groups from 10 – 24. Adolescence is categorized into three groups' young adolescence, middle adolescence, and late adolescence. Young adolescence ranges from 10 to 14 years, middle adolescence is from 15-19 years, and late adolescence ranges from 19-24 years (Kinghorn et al., 2018). The environment, including school, peers, and family, plays a major role in the better transition towards adulthood and is essential for their development (Roth & Brooks-Gunn, 2000).

1.3 Positive Psychology

Martin Seligman, known to be the father of positive psychology, promoted discussion on positive psychology. When psychology as a field majorly focused on negative aspects of human life, which created an unbalanced condition without denying the negative aspects of human life, Seligman refocused on the human strengths and virtues to restore the balance in psychology (Simonton & Baumeister, 2005). Positive psychology studies human strengths and virtues (Sheldon & King, 2001). Rather than focusing on diseases and disorders, positive psychology focuses more on the sources of psychological health like the character strengths and virtues humans possess. The three domains of positive psychology include pleasant life, engaged life, and leading a meaningful life. A pleasant life is rather than eliminating negative emotions, it is having a maximum level of positive emotions and thereby, lowering negative emotions. Engaged life is using positive individual traits and character strengths as well as our talents in daily life. The use of the strengths and talents will lead to an engaged life. The concept of flow is another important part of the engagement. It is the experience of the state of flow or getting absorbed and losing the sense of time when we are involved in activities we are interested in. The third domain is a meaningful life, as we are part of positive institutions and communities in societies, they will help us to foster positive emotions and positivity in us. The positive institutions include schools, religious groups we belong to, etc. Meaning is all about having purposeful life; those who have a meaningful life will get connected to some higher power beyond themselves; this can derive from positive institutions (Lee Duckworth et al., 2005).

In education and development, researchers focus on the wellbeing of children and youth and various variables that affect their wellbeing, strengths, and virtues. Positive subjective experiences like happiness, fulfillment, the satisfaction of life, flow;

individual traits like interest, character, value; positive relationships like friendship, marriage, colleagueship, and positive institutions and groups, like school, family, community, and business are significant factors which help human to attain a pleasant and good life. As mentioned, the positive institution includes the schools, family, community, etc. These institutions will allow individuals to display better relationships and to have positive traits, which in turn result in positive subjective experiences at an individual level (Park & Peterson, 2008). Thus, proper training and school interventions are necessary for an adult or a child to attain a good life with positive subjective experiences. Simple activities related to positive psychology can enhance positive emotions, have better positive thoughts, increase positive behavior, and increase needs satisfaction, which results in enhanced Wellbeing (Lyubomirsky & Layous, 2013).

1.3.1 Positive psychology Intervention

Positive psychology interventions include various methods for treatment and strategies, which help cultivate positivity in cognition, feeling, emotions, and behavior. Certain activities such as writing a gratitude letter, doing an act of kindness, reflecting on ones' strength will lead to Wellbeing (Sin & Lyubomirsky, 2009). Meditation based positive psychology interventions helps individual to have more positive emotions (Cohn & Fredrickson, 2010).

Positive psychology interventions were found to be effective in a wide range of people. It helps patients with breast cancer to lead an optimistic life with better wellbeing, promoting positive aspects in their life (Casellas-Grau et al., 2014). Positive psychology interventions also contribute to better psychological and subjective wellbeing and dealing effectively with depression (Bolier et al., 2013). In a work environment, positive psychology interventions effectively enhance the wellbeing of employees (Kaplan et al., 2014). Specific exercises such as writing about positive experiences improved the positive mood of undergraduate students. There were fewer visits to the health center during illness than the group in the control group. Exercises like writing down positive experiences have a significant positive effect on people (Burton & King, 2004). With enough motivation and dedication, if one is engaged in positive psychology-related activities, it will help them acquire, enhance and maintain

their wellbeing. Happiness-based intervention studies are relevant proof for that (Lyubomirsky et al., 2011).

1.4 Virtues and Character Strength

A good person with good conduct is believed to have a good life. The good and bad, moral and immoral, etc., in behavior, has been judged based on the concepts put forth by the theologians and philosophers. APA developed the Diagnostic and Statistical Manual of Mental Disorders (DSM) in 2000. While it focused on the weakness and pathologies, Peterson and Seligman came up with the idea of the Values in Action (VIA) Project in 2004 to develop a classification system focusing on human strengths. VIA focuses on aspects of life above zero, while DSM explains the aspects of life below zero. Under Petersons and Seligman's coordination, they gathered information regarding virtues and character strengths from various religions, philosophies, and cultures. They came up with various virtues and strengths from different sources and, by the end, after in-depth studies, came up with six virtues: which are universal and 24-character strengths under that (Baumgardner & Crothere, 2015). Further, they came up with a VIA inventory, which has been used widely by many researchers and practitioners.

According to Peterson and Seligman, "virtues are the core defining features of good character." Character strength is considered the basic building block of human goodness and flourishing. It possesses certain features. They will be substantially stable and include certain personality traits that are universal and widely accepted by different cultures, religions, and philosophers. They can be displayed through our cognition or thinking, affect or feeling, volition or willingness, and behavior, i.e., through our actions. It will be morally valued or considered sound by others and will be useful for oneself and others; it will not result in causing harm to oneself or others in society (Peterson & Seligman, 2004). Virtues can be achieved through character strengths. The six virtues include wisdom, courage, humanity, justice, temperance, and transcendence. The character strengths which come under each virtue will lead to the specific virtue. For example, wisdom and knowledge can obtain through the strengths such as creativity, curiosity, judgment, love of learning, and perspective. In the VIA inventory, which assesses the strengths and virtues, if a person obtains higher scores on these

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character strengths, their prominent virtue will be wisdom and knowledge. Similarly, we can understand the more superior strengths or signature strengths and lesser strengths of an individual.

1.4.1 VIA classification of character strength and virtues (Park et al., 2009)

1.4.1.1 Wisdom and knowledge. They include cognitive strengths such as creativity, curiosity, open-mindedness, love of learning, and perspective, which help in acquiring and using knowledge. Creativity is the ability to do things in novel or unique and productive ways. A creative person will find unique ways of working with ordinary things. An individual is said to be having the strength of open-mindedness when they can think about things and situations from all perspectives before making a decision. They will not jump into decision-making. They examine problems and issues from all perspectives and wisely make a decision. Love of learning is all about an individual who loves to learn new things and acquire new knowledge and skills. Perspective as strength is identified as the ability to give suggestions and advice to others.

1.4.1.2 Courage. They are emotional strengths such as authenticity, bravery, persistence, and zest, which help an individual to achieve or acquire his/her goal in the face of opposition. Authenticity is all about being genuine and remaining truthful even in situations of opposition or challenges. Those who have the strength of bravery will not withdraw from tasks and goals they want to finish no matter challenges or threats arise. Persistence is the strength that helps to complete tasks no matter whatever challenges and oppositions arise. The strength of zest helps to face life with excitement and energy.

1.4.1.3 Humanity. Humanity as a virtue includes interpersonal strengths, which help in maintaining interpersonal relationships. The virtue of Humanity includes strengths such as kindness, love, and social intelligence. Kindness is an act of doing good deeds and helping people in need. Love is considering relationships as valuable and maintaining close relationships. Social Intelligence, as a strength, is the ability to understand the emotions and motives of oneself and others.

1.4.1.4 Justice. Justice includes civic strengths such as fairness, leadership, and teamwork. These strengths will lead to healthy community life. The strength of fairness is the ability to treat everyone equally and fairly. Good leadership can establish group activities and ensure that the group does them properly. An individual with the strength of leadership will guide groups effectively and ensure that all group members work properly to attain the goal. Teamwork is the strength that enables an individual to work efficiently in a group as a member of a group.

1.4.1.5 Temperance. It includes strengths to help oneself deal with excesses in life, such as forgiveness, modesty, prudence, and self-regulation. Forgiveness is the ability to forgive others who have done wrong to you. Rather than speaking about one's achievements and accomplishments, letting others acknowledge one's action and accomplishment by seeing is modesty. Individuals with prudence carefully analyze choices needed to be made from all sides so that no need to regret them in the future. Self-regulation is the strength to regulate or being authoritative with one's feelings and actions. Self-regulation is when an individual has control of one's feelings and emotions.

1.4.1.6 Transcendence. Strengths that ensure or maintain connections with higher power and to have a meaningful life, which includes strengths such as appreciation of beauty and excellence, spirituality, humor, hope, and gratitude. Appreciation of beauty and excellence is the strength in which individuals notice, appreciate, and enjoy little things in daily life and skilled performances. They will find beauty in simple things usually people fail to notice. Gratitude is being aware of good things that happened in life and remaining thankful. Experiencing and expressing gratitude plays a major role in flourishing; it helps shape one's identity (Emmons & McCullough, 2004). Hope is all about believing that the best thing will happen in life, and it motivates you to achieve your goals in life. Humorous people like to tease, and they can make others laugh and like to laugh. Religiousness/Spirituality is another strength that denotes an individual's connection with higher power and having a feeling of purpose and meaning for their life.

1.5 Wellbeing- PERMA dimensions

The concept of wellbeing is essential for human flourishing. It mainly focuses on assets than the deficits of an individual. Focusing on wellbeing will help build a better society; it will enhance all aspects of our lives (Huppert, 2009). Seligman, during 2002, through his book '*Authentic Happiness'*, put forth the theory of happiness. He mentioned that three pathways lead to happiness, including Pleasant life, Engaged Life, and Meaningful life. Then later, he developed the PERMA theory of wellbeing.PERMA model consists of 5 elements of wellbeing including positive emotions, engagement, relationship, meaning, and accomplishment. These elements together will contribute to the state of human flourishing (Goodman et al., 2018). Positive emotion, engagement, and meaning were the only elements in the theory during the initial stages. Later, he added other factors such as relationship and accomplishment in the model.

According to Seligman (2011), each element should have certain properties. First of all, it should enhance Wellbeing, each element should be pursued independently for its own sake, and it should be measured and defined independently (Khaw & Kern, 2014). Based on Seligman's Wellbeing model, elements of Wellbeing are Positive emotions, engagement, relationship, meaning, and accomplishment.

1.5.1 Positive Emotions

Positive emotions are the feelings of happiness, such as feeling joyful, cheerful, and content. Positive affects like happiness can lead to better mental and physical health (Howell et al., 2007). In addition, the positive affect will lead an individual to positive outcomes and prosperous life (Lyubomirsky et al., 2005).

1.5.2 Engagement

The second element, Engagement, is related to activities an individual getting involved in. It is the feeling of getting absorbed in the activities we enjoy doing. If a person is interested in the activity, he or she will get absorbed in that and may feel the experience of flow or losing the sense of time. Flow is a feeling or experience individuals have when they do their favorite activities. The experience itself is an intrinsic reward for them (Csikszentmihalyi & Csikszentmihalyi, 1992).

1.5.3 Relationship

Human is social beings, being part of a group or a society is an essential factor throughout life (Gilbert et al., 1998). Thus maintaining and building a better and positive relationship is essential for each one. A positive relationship denotes the connection between an individual and the significant others. Being supported and cared for by others are important in building social connections. Variables of social relationships such as social support and social integration lead to better coping strategies and positive psychological experiences (Cohen, 2004).

1.5.4 Meaning

According to Seligman (2011), meaning is when a person believes that his or her life s valuable and feeling connected with something greater than oneself or some higher powers. For each person Meaning may differ such as having attachment with family, having a successful academic and career life, or helping others and involved in social services and charity. Feeling that life has a purpose affects mortality and leads to Wellbeing (Boyle et al., 2009).

1.5.5 Accomplishment

Accomplishment refers to an individual's sense of achievement, having progress towards goal attainment, and believing in one's capacity to achieve the goals (Forgeard et al., 2011). These five elements are significant facilitators of wellbeing. They can measure independently.

1.6 Link between Character Strength and PERMA

It has been found out that strength use will lead to wellbeing. Those who possess and use their strengths found to be possessing greater wellbeing. From various studies, we can understand that character strength and aspects of wellbeing are correlated. From wide pieces of literature, the link between strengths and aspects of wellbeing is visible. Positive affect is related to the strengths such as curiosity, zest, and hope. The negative affect is related to honesty, forgiveness, and humility; environmental mastery and self-acceptance are linked with strengths such as zest and hope. Character strengths like curiosity and a love of learning are linked with personal growth. Strength, including self-regulation, curiosity, zest, perseverance, and hope, denotes purpose in life. Strengths such as honesty, bravery, and perspective may lead

to the aspect of wellbeing like autonomy and love, and social intelligence enables positive relationships (Harzer, 2016).

Seligman himself put forth the idea regarding the link between both PERMA elements and character strength. According to him, Character strengths act as a pathway that leads to PERMA or Wellbeing. The twenty-four strengths contain all the five elements of PERMA. An individual's highest strength will help them have more positive emotions, increased meaning, more accomplishment, and better relationships (Seligman, 2012). Similarly, researchers also support the connection between character strengths and wellbeing (Steger et al., 2007).

Using her logic and knowledge, Rebecca L. Oxford (2016) categorized these 24 strengths under each element of PERMA. Positive emotions include love, hope, and gratitude, curiosity, fairness, and leadership under Engagement, strengths like honesty, kindness, social intelligence, teamwork, fairness, leadership, and forgiveness related to relationship aspect; perspective, spirituality, appreciation of beauty, and excellence are related to Meaning. Under Accomplishment, strengths such as creativity, zest, perseverance, humor, humility, judgment, prudence, love of learning, bravery are included (Oxford, 2016). Thus, considering the link between character strength and the PERMA model, the researcher uses the model to develop activities to foster character strength among adolescents.

Table 1.1 Table showing the association between PERMA and Character strength.

PERMA	Character Strength
Positive emotions	love, hope, and gratitude
Engagement	curiosity, perseverance, and zest
Relationships	honesty, kindness, social intelligence, teamwork, fairness, leadership, and (interpersonal) forgiveness
Meaning	perspective, appreciation of beauty and excellence, and spirituality
Accomplishment	creativity, judgment, bravery, love of learning, self-regulation, prudence, humor, humility, and perseverance, and zest

1.7 Character Strength Intervention

Promoting adolescents' mental health and wellbeing is significant for public health and societal Wellbeing (Rose et al., 2017). In a world full of challenges, to face

them effectively, nurturing student's strengths and virtues are essential. Helping them to develop their strengths and virtues starts within a classroom. Thus, through a positive classroom, we can build a better nation (Kumari, 2016). Strength-based intervention in character development mainly focuses on identifying strengths in students and using them to flourish in life. Strength-based character development intervention can be used to nurture positive qualities in students. Both the character education and strength-based approach for students are linked, and both help them to flourish. Character education helps students to develop characteristic traits and values and to reflect it through their thoughts, emotions and behavior. While character seems to be an abstract concept, individuals' strengths are more specific and reflected daily. Strength-based programs enable adolescents and children to identify their strengths through analyzing existing behaviors. Developing these character strengths and implementing specific programs will help to create a positive environment in school and the classroom (Rawana et al., 2011). Character education mainly focuses on students, especially in schools. As schools are better places where learning occurs, school plays a major role in character formation and development. Character education mainly focuses on building good character, which can be started from the schools. Many moral problems and issues are coming up day by day; most of them are related to youth. Thus character education is essential to build a better moral society and to foster better moral values among young minds (Lickona, 1996).

While encouraging the character strength in an individual, the three factors such as enabling factor, societal institutions, and deliberate interventions should be considered. The enabling factors, which are the naturally occurring factors. They are the enabling environment or the condition which encourages an individual to use his/her strength. The second one is societal institutions, which are social groups an individual belongs to. These social groups promote the strengths of members in it. Then there are deliberate interventions, which include interventions and programs designed and conducted by the researchers, psychologists, and practitioners to develop character strength among a group of people or individuals (Peterson & Seligman, 2004).

Park and Peterson also provide certain guidelines the practitioner should follow while implementing a character strength. An effective intervention will be planned for an extended time. The shorter interventions focusing on the development of strengths

through weekend programs and workshops are not effective. When an individual spends an extended period in activities related to developing strengths, the effectiveness increases. A program will be more effective if it has been conducted in children rather than waiting for them to attain their late adolescence or adulthood. It will be more appropriate in conducting intervention on preschoolers because the incompatible behaviors will not be developed during the time. These programs should be performed with a well-set plan, and the researcher should be faithful while implementing them. Having a supportive relationship with at least one adult will help in facilitating an effective program. Furthermore, in an effective program, the practitioner will teach the skills needed to achieve the targeted goals or outcomes. Rather than focusing either on school-based or home-based programs, a blend of both systems will help develop the strengths better, and the programs should be appropriate for the participant's culture.

Similarly, both the internal and external environment should be considered before implementing the program or intervention. Intervention studies focusing on the explicit theories, such as focus given on the cause and outcome, are essential in character strength intervention (Peterson & Seligman, 2004). Strength-based intervention imparting theoretical knowledge about each strength is important. A trainer should help the participants recognize their signature strength and use it in action or daily life. They should be able to reflect upon their experience while using their strengths (Lavy, 2020).

1.8 Need and Significance of Study

This study will help determine whether the PERMA-based intervention effectively develops or fosters character strength and wellbeing among adolescents. An intervention program like this, in the Indian context, will allow students to deal with their psychological and wellbeing-related issues. Through the implementation of an intervention, we will be able to build a healthy generation. PERMA and character development training, will enhance wellbeing, life satisfaction, and academic achievement and develop values in adolescents. From previous studies, it is evident that strengths like forgiveness, kindness, self-regulation, and teamwork will lead to lesser symptoms of depression (Gillham et al., 2011). Positive psychology interventions have a positive effect on happiness. It can help boost happiness in individuals (Mongrain &

Anselmo-Matthews, 2012). The development of character strengths and other strengths will lead to increased subjective and psychological Wellbeing (Govindji & Linley, 2007). Interventions with positive activities have a positive effect on Wellbeing (Layous et al., 2013). From previous studies, it is evident that the wellbeing and character strength interventions will lead to a good life. Thus, implementing interventions focusing on wellbeing and character strength will lead to overall life satisfaction and wellbeing. Moreover, positive psychology interventions in school settings will enable adolescents to lead a fruitful life.

Through this chapter, the researcher introduced all the variables and concepts of the study such as adolescence, positive psychology, character strength, wellbeing and described the link between character strengths and elements of wellbeing and interventions related to PERMA and character strength. By the end of this chapter, the need and significance of this study have been highlighted. Further studies related to all the concepts and variables related to the studies will be discussed through a review of the literature in the next chapter.

CHAPTER 2
REVIEW OF LITERATURE

2.1 Overview

In this study, an intervention program based on the PERMA model of wellbeing is developed to foster character strength and wellbeing among adolescents. Adolescence is a major period of human life where significant physical, emotional, and psychological changes happen. During this time, with proper training and practice, adolescents can lead a positive and healthy life. School, family, and social environments play a major role in shaping adolescents during this age period. Character strength is a major aspect that can be developed in adolescents. Through identifying and understanding their strengths, we can help them to use their strengths to increase wellbeing. These reviews will help to explore various components and key concepts in this study.

2.2 Adolescence

Peterson and Seligman (2004) state that "behavior can be shaped, and character strengths and resilience can thus be developed and enhanced" (Hutchinson et al., 2011). Adolescence is considered a period of transition from childhood to adulthood. It is a period of growth and change. Adolescence is a period where one can develop character and personality. Studies show that the development of character strength during adolescence is essential to lead a good life. Park and Peterson mention that young people are mostly focused on outer beauty, and it is important to make them understand rather than looks and wealth, we should admire personal quality. Developing personal qualities and incorporating these qualities into one's own life should be a focus on adolescence. To create these strengths in young people they should be aware of its costs and benefits. Only the practitioner can design and create interest in adolescents to build their strength (Park & Peterson, 2008). While considering the romantic relationship in adolescents, studies show that character strength plays an important role in determining their romantic relationships. Honesty is the most important strength they wish their partner should have. Humor is also the desired

strength in a partner. They concluded that the understanding of the character strength of adolescents would help the parents, teachers, and therapists to promote their mental health (Weber & Ruch, 2012). Similarly, it has been evident that adolescents spend most of their time in schools, and schools play a major role in developing Wellbeing in adolescents. Focusing on multiple domains of wellbeing is more effective in fostering healthy development throughout adolescence. Thus PERMA framework has wide applicability in adolescents development(Kern et al., 2015).

2.3 Character Strength

2.3.1 Character strength and Virtues

Many quantitative analyses were conducted to study the effect of character strength on various behavioral patterns and issues during adolescence. For instance, the following studies were conducted to understand the relationship between strengths, wellbeing, and other school-related factors. 501 adolescents, including girls and boys from age 15 to 18, participated in a study to understand the structure of character strength in adolescents and the relationship between strengths and wellbeing. It has been found out that the girls scored higher on all the 24 strengths than boys. And there is a positive relationship between strength factors such as transcendence, temperance, and vitality with wellbeing and happiness. The study also put forth the necessity to implement various positive psychology interventions to develop wellbeing in adolescents. They suggested conducting strength-based studies in schools of different socio-economic backgrounds and cultures (Toner et al., 2012). Over time, an extensive literature has been developed on character strength and wellbeing.

Similarly, bullying is another major issue faced by school children. Recent studies show that the development of character strength will lead to decreased bullying behavior in schools. A quantitative research study was conducted to study the relationship between bullying status and character strength of school-going students from age 12 to 15, belong to five schools in Michigan. In the study, they found out that the bullying victims have lesser strength of self-regulation. In contrast, hope and self-regulation are highlighted in students who successfully averted the bullying experiences. This shows the importance of developing character strengths like hope and

self-regulation in youth, and the development of character strength will lead to increased wellbeing and decreased bullying behavior (Hennard, 2015).

A longitudinal study has been conducted to study virtues and gender differences of 282 adolescents recruited from eight Spanish schools. It has been found out that the Spanish girls scored more than the boys in all the six virtues such as wisdom and knowledge, courage, humanity, justice, temperance, and transcendence. It's been found out that both the boys and girls had the highest scores in humanity and lowest scores for temperance. Researches also suggest that other variables such as academic success, satisfaction, and wellbeing should be considered in further studies (Ferragut et al., 2014).

Thus, character strength development will help adolescents to lead a successful and balanced life. For instance, in a school-based qualitative study, researchers found out that identifying and nurturing students' strengths through positive education and various approaches will facilitate character development. They concluded that when students get involved in virtues, strengths, and positive education, their character strengths and values will be fostered and strengthened (Pissoto Moreira, 2018).

2.3.2 Factors affecting Character Strength

Studies show that certain factors affect the character strengths of an individual. These factors include age, gender, parental influence, religiosity, socio-economic status, etc. Several studies considered age and gender as a factor which affect character strength of an individual. It has been found out that girls have higher scores on all the virtues than boys (Ferragut et al., 2014). However, some studies show that there exists only a negligible difference in the character strength of adults in terms of an individual's gender. Nevertheless, supporting previous observations, they found that girls obtained comparatively higher scores in strengths than adolescent boys.

Similar to gender, age also has a major role in governing the character strength of an individual. In the case of individuals less than 20 years, there is no difference in creativity and openness based on gender, but adult men scored more than women on these strengths. For children and adolescent's girls scored higher than boys on strengths like humility, perspective, citizenship, and fairness, but these differences were found to

be negligible in adults. There is a comparatively lesser difference in strengths like kindness and appreciation of beauty in adults than adolescents and children in terms of gender. Females scored higher than males in bravery, forgiveness, mercy, and social intelligence while they are below 18. From 18 to 24, males score more in bravery than females. Rather than that, there was no gender difference found for bravery and social intelligence in adults, and there is no significant difference in character strength based on gender wide across nations. Thus, they concluded that the strength-based interventions in terms of strength such as gratitude, kindness, appreciation of beauty and excellence, and love might vary in their effectiveness because of gender differences. Furthermore, they found out that relying only on self-report measures can limit the study (Heintz et al., 2019). Similarly, other studies also show that adolescent girls score more on fairness, authenticity, kindness, and love than boys, but boys scored higher in bravery than girls (Ngai, 2015).

The research focused on exploring the relationship between religiousness and character strength shows that religiousness affects an individual's character strengths. American Muslim youths were studied to understand their character strength and its relationship with religiousness, and the researchers found out that high religiosity will lead to greater strengths. Character strengths such as kindness, forgiveness, leadership, spirituality, prudence, equity, hope, self-regulation, and gratitude are found to be much more prevalent in highly religious American Muslim youths (Ahmed, 2009).

The environment is also a contributing factor for the development of character strength; this has also been explored in prior studies by Steven Sek-yum Ngai (2015). He considered strengths such as love, perseverance, bravery, authenticity, self-regulation, kindness, fairness, bravery, and social intelligence of Chinese adolescents to study its relationship with care and control by their parents. Thus, the researchers found out that care given by parents has a positive effect on these strengths and they are negatively correlated with the control exerted by parents. So lower level of parental care and a higher level of control by parents negatively affected the character strength of adolescents (Ngai, 2015). In most of the studies, the researchers chose specific strengths to implement interventions and understand strength-related behaviors. Certain studies show that rather than focusing on few strengths, it is needed to focus on all the

strengths for having a meaningful life. Maintenance of balance between all the strengths is necessary. While most of the studies concentrate on signature strengths or few character strengths, this study suggests that all the strengths should be considered essential and should be included in studies (*Balance Among Character Strengths and Meaning in Life | SpringerLink*, n.d.).

2.3.4 Character Strength-based interventions

Character development programs and positive education are important in a school context. Interventions in schools will help the students to lead a fruitful life and to deal with most of the school-related problems and psychological issues. This was successfully established by Waters in 2011 through his studies. He states that the school-based interventions focusing on character development are important in developing the overall wellbeing, engagement, confidence, and hope in children (Waters, 2011). Researchers used various positive psychology exercises such as actively responding to good news, having a gratitude visit, writing down the blessings, life summary exercise, savoring exercise, and strength exercise (Schueller, 2010) in intervention programs. It also encourages the researchers and practitioners to develop further interventions and programs focusing on character strength development.

According to Peterson and Seligman, certain factors encourage the character strength of an individual, which includes the enabling factors, which are the naturally occurring factors that determine an individual's strength. It may be an enabling environment or a condition which encourages an individual to use his/her strength. The second one is societal institutions, which are social groups an individual belongs to. These social groups promote the strengths of members in it. Then there are deliberate interventions, which include interventions and programs designed and conducted by the researchers, psychologists, and practitioners to develop character strength among a group of people or individuals (Peterson & Seligman, 2004). While developing the strength-based interventions, these factors are important to incorporate in it. They also state that while most of the studies focus on signature strengths, the lesser strengths are also important. They suggest that focus should be given to the development of lesser strengths through interventions. Certain strengths like authenticity, leadership, open-mindedness, forgiveness, perspective, and spirituality are lesser strengths in both

adolescents and young adults and they will be developed when they get matured. Through deliberate interventions, we can enhance or speed up the process of achieving these strengths (Park & Peterson, 2008).

A focused group discussion was conducted with students from 9th and 12th grades belong to 20 classes, to assess the character strength of adolescents and to obtain information regarding adolescents' perception about the character strengths included in the VIA classification. From the discussion, it's been concluded that for adolescents, experiential programmed would be better to develop character strengths. They believe that rather than possessing the character strength by birth, it can be acquired. After-school character development exercises and programs will help in providing them with character-building life experiences. The researchers also suggested that it is important to have character strength development programs, and the youth believes that these strengths are interdependent. Exposure to the strength models who possess various strengths seems to be another vital part of training them. Peer influence appears to be having a positive correlation with the development of traits in adolescents; thus, interventions and programs at the peer level will be more effective (Steen et al., 2003).

Researchers examined the effectiveness of nine strength-based exercises in enhancing wellbeing and decreasing depression. The researchers divided the nine strength-based tasks into nine intervention groups. The first group is assigned with the exercise of gratitude visit; the second group was assigned to write three good things that happened in their life. Similarly, the other groups got assigned with activities like using their strengths in unique ways, recalling two good things that happened every day for two weeks, gratitude visit and three good things that happened for every day, writing down funny things that happened every day for a week, counting acts of kindness for every day for one week, meeting three people they care for in a week (gift of time) and recalling the negative events which lead to positive consequences in their life. While the intervention groups underwent these activities, the placebo group recalled and wrote down what happened in the past for one week. It has been found out that all interventions, except remembering three good things that happened, increased happiness and decreased the symptoms of depression. In the study, they relied only on self-report measures and focused only on certain character strengths; thus it's a need to bring in other strengths belong to the VIA classification of strengths as well as other

strategies should also need to be used for developing these strengths (Gander et al., 2013).

A strength-based intervention study was conducted on 285 undergraduate students of a Chinese university using a 2*2 experimental design. It has been found out that after six weeks of intervention, the participants had an increase in their life satisfaction, and later, the scores showed a decline. It has been observed that the students who got informed about the purpose of the study and the group of students who got strength-based training had better life satisfaction compared to the control group and the group who were not informed about the purpose of the study. Thus, it has been found out that strength-based training can be adopted as an effective intervention to increase life satisfaction among Chinese undergraduate students. In the study, the focus was given to individual-based intervention, where the individual's effort is more important. Thus, the researchers could not determine whether the group interaction had any effect on the effectiveness of the intervention. They also suggest that incorporating strength practiced in the regular teaching curriculum and students' daily lives will be more effective in developing their life satisfaction and better physical and mental health (Duan et al., 2014).

'The Awesome Us' strength program was administered by teachers for adolescents for 90 minutes in six weekly sessions. Each session focused on different aspects like learning about strength spotting, learning about strengths, teaching how to support these strengths, learning about how to use the strengths and use of strengths in relationships. 196 students from the age of 8 to 12 who belong to five schools from New Zealand participated in the study. The intervention group found to be having higher class cohesion and need satisfaction compared to the control group. Similarly, classroom engagement, positive affect, and strength use were found to be higher in the intervention group than in the control group. Accepting and providing strength-related feedbacks and having interactions in groups during strength-based interventions should also be focused on individual-based strength development programs. It will clarify the effect of group interaction on character strength development (Quinlan et al., 2015). Similarly, Studies on mindfulness-based character strength intervention on spirituality shows that it will help in the positive development of children, adolescents, and adults (Kielty et al., 2017).

Many interventions are developed by incorporating strength use to enhancing wellbeing and to enable adolescents for attaining a good life. Even Linda Jones, in her study on Magic at the Movies: Positive Psychology for Children, Adolescents, and Families, states *that "Character strengths are foundational to wellbeing, and movies are a rich source with which to build character strengths and hence flourishing"* (Rufer & Jones, 2014). Thus using films and movies to identify and learn character strengths are effective. Hutchinson et.al. In his study to discover the relationship between character strength, resilience, and temperance mentioned that interventions are essential to enhance psychological wellbeing by identifying and developing character strength and resilience. They also suggest that these interventions should incorporate activities that include case studies, individual and group-based therapies, workshops, training, and counseling, which help in involvement with the community and self-exploration (Hutchinson et al., 2011). From these studies, we can understand that most of the studies are focused on few strengths rather than considering all the 24 strengths together.

While some studies show that positive psychology interventions enhance wellbeing and decrease depressive symptoms (Sin & Lyubomirsky, 2009), other studies show partial effectiveness in gratitude and strength-based interventions on happiness and reducing depression (Senf & Liau, 2013).

2.4 PERMA and Interventions

A study was conducted to determine the elements of joy at schools using activities related to PERMA elements. The researchers brought in certain activities related to all the five dimensions of PERMA and implemented them in 14 students of a Northern Finnish school. The activities included writing a gratitude diary, strength GYM, success celebrations, etc... Moreover, it has been found out that the PERMA-based teaching practices increased the joy of students related to school and enhanced the wellbeing of students (Leskisenoja & Uusiautti, 2017).

Using data collected from 999 samples out of 2443 participants of the Australian Temperament project, researchers examined the "long term implication of adolescent's positive mental health for a successful transition towards adulthood." In the study, positive mental health is defined by the PERMA elements and health. And it has been

found out that positive mental health during adolescence (15-16 years) will lead to career progression and citizenship responsibility during adulthood (27-28 years). By fostering the adolescent's mental health and helping them deal with the difficulties during adolescence, it will help them to lead better adulthood (O'Connor et al., 2017).

The review of the literature shows that the studies related to PERMA are applicable in a school context. In Australian schools, a study has been conducted to understand the effectiveness of a music program. Based on the 17 case studies, they tried to sort out how each Wellbeing (PERMA) element are being realized through the program. They found out that the relationship element is described more than other elements, and it is the crucial factor that helped in the success of music programs conducted in school. The element of the relationship and other elements like engagement, meaning, etc., also contributed to the success of the program. Thus, the music programs will be effective in providing psychosocial wellbeing for adolescents (Lee et al., 2017)

A two-year longitudinal study to understand the effectiveness of a positive psychology program has been conducted on 2517 middle school students from Israel. The program was named the Maytiv school program, and the intervention framework was based on PERMA. It has been found out that the positive psychology intervention, which is based on the PERMA model, will help to improve the elements of Well-being that are related to PERMA. Compared to the intervention group, the control group decreased their positive emotion and cognitive engagement. There were no significant changes related to relationships with the peer, emotional engagement, and school-related achievements. Thus, it highlights that the PERMA framework is successful and it should be a part of the curriculum in schools to develop the wellbeing of students (Shoshani et al., 2016).

2.5 Link between PERMA and Character Strength

Rather than just identifying and making aware of individual character strengths, it's also important to train an individual on the use of those strengths. Researchers used different models for studying wellbeing and character strengths. They widely used Diener's model of subjective wellbeing in studies correlating wellbeing and character strengths and also suggested that other models like Seligman's

PERMA model should be considered in the studies using character strength. Thus, as a wellbeing intervention in educational settings, the PERMA model is also apt to study the character strength of adolescents (Zhang & Chen, 2018). It has been evident from previous studies that the elements of PERMA and the character strengths are interrelated.

According to Warter (2011), character strengths in students can be developed using school-based interventions. As a part of the curriculum, it helps the children work on developing their strengths, and social skills, which in turn results in better wellbeing, confidence, hope, engagement, etc. He also states that Seligman's PERMA model can be adapted in positive psychology interventions. It will help in developing a positive education environment (Waters, 2011). Similarly, in a study to explore a multidimensional approach to measuring the wellbeing of 516 Australian male students from the age range of 13 to 18 in the context of PERMA, the researchers found out that multidimensional measures of wellbeing are applicable in the school context and the PERMA framework will be helpful to in providing positive education for adolescents (Kern, Waters, Adler, & White, 2015). Similarly, Researches show that exercises based on three activities such as setting and visualizing goals, expressing gratitude, and doing home-based exercises positively affect character strengths such as hope and gratitude. It's also been found that interventions resulted in a positive change in virtues such as courage, humanity, and transcendence in emerging adults. Thus, they also support the link between PERMA and character strength. Well-being-based intervention can positively affect character strength and vice versa. It also proves that school-based positive psychology interventions such as cultivating character strength will help children in better wellbeing and better relationships. They also make them psychologically strong and help them to perform better (Leontopoulou, 2015).

Two studies conducted by the same group of researchers on character strength and wellbeing states that all the character strengths are positively related to PERMA dimensions. They came up with an association between character strengths and orientation towards dimensions of the PERMA. Thus, it's been found out that both the wellbeing and character strength are interrelated and also recommends PERMA framework in the development of character strength interventions (Wagner et al., 2019).

2.6 Impact of Strength use

Researches show that the use of strengths positively correlates with the overall wellbeing of an individual. A study conducted on 224 undergraduate students of the United States shows that strength use contributes to life satisfaction. As an individual use his or her strength it will lead to life satisfaction. Applying one's strength will increase self-esteem and lead to satisfaction in life. Therefore, it shows that the relationship between strength use and life satisfaction is mediated by self-esteem (Douglass & Duffy, 2015).

Similarly, in other longitudinal studies, it's been found out that greater strength use will result in greater wellbeing, and it is also related to self-esteem, vitality, positive affect, and lower level of perceived stress (Wood et al., 2011). This was successfully established by Weber and a group of researchers in 2013. They conducted a study on 396 Israeli adolescents from 13 to 18 years and found that character strengths will lead to a fulfilled life even in stressful and challenging conditions (Weber et al., 2013).

There exist some studies focusing on the relationship between character strength and wellbeing. Studies show that the development of character strength and resilience in an individual will lead to the attainment of psychological Wellbeing (Hutchinson et al., 2011). Similarly, in a pilot study conducted on primary school students in Australia, the researcher administered the VIA inventory for youth to assess the character strength of the students and then conducted a strength-based coaching program in the. Thus, they found out that the coaching program conducted based on strengths positively impacted the level of hope and engagement of students. As there is an increase in their hope and engagement, they concluded that the strength-based intervention helps in enhancing the wellbeing of adolescents and promote their mental health (Madden et al., 2011). Findings from studies on 149 adolescents who attend high school show that strengths like kindness, which are related to other people, predicted adolescents' wellbeing in the future than the strengths related to oneself (Gillham et al., 2011).

Similarly, a comparative study focused on the effect of character strength on subjective wellbeing and psychological wellbeing on medical students show that character strengths are correlated with psychological wellbeing than subjective wellbeing. It also shows that psychological wellbeing such as mastery and relationship

are much more related to the character strengths than the other aspects such as engagement, meaning, autonomy, and optimism. While aspects like meaning, autonomy, and optimism are much more related to hope, the other aspect like relationship and engagement are related to zest. Hope as a strength was found to be important in all aspects of Psychological Wellbeing (Hausler et al., 2017).

Researchers argue that the topic of character strength its use in schools has been neglected, and it should be given much more importance. The schools should provide much attention to strength-related education by implementing these topics in the curriculum and the discussions. By fostering the students' character strengths, the practitioner can encourage them to attain more positive feelings and improve their academics, and the betterment of school functioning (Weber et al., 2016). Moreover, it's been found out that awareness about one's strength will help adolescents in making better career decisions (Proyer et al., 2012).

A study to find the relationship between values, character strength, and coping strategies among college students shows that the character strengths are related to three types of copings in college students: avoidance coping, cognitive approach coping, behavioral approach coping(Gustems-Carnicer & Calderón, 2016). A study conducted on US and Swiss adult samples shows that character strengths are related to individual life satisfaction. Love, hope, curiosity, and zest are the strengths that are mostly related to life satisfaction. These strengths are primarily associated with life satisfaction and related to the dimensions of happiness such as engagement, pleasure, and meaningful life. Thus the character strengths will lead an individual to a more fulfilled life (Peterson et al., 2007).

2.7 Indian Studies on Positive Psychology Intervention on Character Strength and WellBeing

From a review by the researcher on Positive psychology in India, we can understand that the topics such as resilience and life satisfaction gained more attention in the Indian context. Studies on other concepts and topics such as intervention-based studies, character strength, positive psychotherapy, etc. should be conducted in the Indian context. While considering studies on character strength in the Indian population, he also found out that the researchers focused only on few strengths like leadership, forgiveness, and gratitude. Character strengths such as love of learning, bravery, and other strengths need to be attended. Furthermore, he also mentioned that the intervention studies in India are gaining popularity, and specific interventions have been tested effectively in the Indian population (Ghosh & Deb, 2016).

We can observe that there are many quantitative studies focused on assessing the impact of strength on adolescents. Recent studies on Indian adolescents show that home-bound adolescents have a better level of character strength, resilience, and life satisfaction (Rani & Mitha, 2016). A quantitative study was conducted to determine the relationship between general wellbeing and character strength of Indian youth. It's been conducted on 50 students aged 18 to 25 from universities and colleges of Kolkata. Values in Action inventory and Subjective wellbeing inventory by Sell and Nagpal was administered and assessed. And it's been found out that there is a significant relationship between character strengths and subjective wellbeing. The strengths such as love, curiosity, and humor, don't have any relationship with subjective Wellbeing (Yasmin & Waheeda, 2017). The study shows that character strength is positively correlated with the subjective wellbeing of Indian youth; thus, the interventions needed to be developed for the positive development of youth in India.

A study has been conducted to develop an intervention to increase gratitude among Indian school students. It was conducted on 177 school children of age 11 to 14 and belong to one private and one government school from the northern part of India. The intervention is conducted in eight sessions. They concluded that the intervention programs they implemented are effective for the character development of children and adolescents in Indian settings (Khanna & Singh, 2016).

A positive psychology intervention program named 'hero lab' was conducted in a slum in Mumbai by Hindu community leaders for Hindu youths at risk. The program showed a positive development in happiness, gratitude, empathy, and grit of at-risk youths who participated in the study. Activities focused on the development of character strength like performance and skits and 'finding local heroes' are added in the curriculum with other intervention strategies related to gratitude, mindfulness, empathy, optimism, meaning, purpose, etc. (Sundar et al., 2016). Similarly, a six-week (once or twice in a week) intervention program for developing the wellbeing of adolescents was also found to be successful in the Indian context. Intervention program conducted for 65 adolescents from CBSE school of Kaital, who were very low in various dimensions of life skills, and it has been found out that the intervention program had a positive effect on adolescent's Wellbeing (Seth & Rattan, 2017).

2.8 Research Gap

School is the place where our children and adolescents spend most of their time. Nurturing and developing various aspects of an adolescent's character and wellbeing is possible through proper training and practices in schools. Positive psychology came into existence to replace the human tendency to focus on weakness and negative aspects by refocusing on positive aspects of an individual. Thus, through focus given on positive aspects and strengths of adolescents, we can ensure that they can lead a better life.

From the related literature review, it's been found that intervention studies that focus on fostering character strengths using the framework of the PERMA model should be further explored. Dieners model of subjective wellbeing is widely used in studies to find out the wellbeing and strength relationships. So, this study will act as a basement for future studies and researches on the area focusing on PERMA and strength development. It will be the first strength-based intervention study that is based on the PERMA model to develop character strength. Most of the studies are conducted to determine how various aspects of wellbeing are related to character strength. Thus, they found out that using character strengths helps to foster happiness, wellbeing, academic achievement, life satisfaction, etc. Moreover, there are also intervention studies that happened in the western context. However, there are only a few studies that happened

in India for developing character strength. Structured programs dedicated to developing all character strengths and Wellbeing in the Indian context are in the opening stage. Thus, further studies should focus on character strength and wellbeing.

Its also evident that the PERMA-profiler was developed in 2016 with 23 items and measures for each domain of PERMA. Exploration of the sensitivity of these dimensions based on an intervention program should be a focus of further studies. Thus, intervention studies using PERMA-Profiler will help understand the effectiveness of these interventions on developing each wellbeing domain (Butler & Kern, 2016). Certain character strength interventions are limited to few strengths and use limited activities and exercises. Common activities include counting your blessings, writing a gratitude journal, using strengths in new ways, etc., but this study using PERMA-based intervention will address all the character strengths. It's essential to ensure that the positive psychology interventions to develop character strength are implemented and practiced in Indian school settings. Here, in this study researcher is developing a positive psychology intervention based on the PERMA framework to enhance wellbeing and character strengths through identifying character strengths, and practicing them.

Studies show that the environment, family, parental care, and peer have a significant influence on the development of character strength of children and adolescents. The family-related activities involving interaction with family members and activities related to friends and peers are also incorporated in this study. Thus, these dimensions are also addressed simultaneously. Incorporating all the strengths in the intervention with creating awareness about the strengths will help create balance within the character strength and enhance students' wellbeing. Rather than asking the students to use their signature strengths, encouraging them to use them creatively and providing a proper framework for strength use help in proper follow-up and encourage students to finish activities regularly. Studies majorly focused on individual-based practices like asking them to use their signature strengths in novel ways and applying them in real life. However, in this study, the class as a group and family are involved in activities. The researcher incorporated individual-based activities and group-based activities to make them more effective. Researchers mentioned that only home-based activities or activities that are confined to school would not be effective. Thus, in this study,

activities focusing on both institutions are incorporated. Thus, this study will help in implementing an effective intervention in the Indian context. A successful intervention program will help in incorporating these ideas into the curriculum for fostering the wellbeing of students.

The study's objective is to study the effect of PERMA-based intervention on adolescents' character strength and wellbeing. The study aims to determine the effectiveness of PERMA-based intervention programs in developing adolescents' character strength and wellbeing and to study the effectiveness of intervention in Indian school settings.

2.9 Statement of the problem

As adolescence is a major development period, focusing on the wellbeing and healthy transition towards adulthood is necessary. Various physical, psychological and emotional issues seem to be a part of this stage of development. Due to the transitional process from childhood to adulthood, they will have difficulty adapting to significant changes in their lives. Identifying and using the character strength will help in fostering their character strength as well as their wellbeing. Wellbeing is an essential part of healthy development. The researcher has given specific strategies and techniques related to the PERMA model for developing character strength and wellbeing. This study aims to develop a PERMA-based intervention to foster character strength and the wellbeing of adolescents. It also studies the effect of PERMA-based intervention on character strength and various dimensions of wellbeing.

OBJECTIVES OF THE STUDY

1. To study character strength and wellbeing of adolescents.

2. To understand the difference in character strength and wellbeing on demographic variables.

3. To develop PERMA based character strength intervention program.

4. To study the effectiveness of PERMA-based intervention on character strength and wellbeing of adolescents.

5. To compare the change in character strength and wellbeing through experimental group and control group.

6. To study the effectiveness of PERMA-based intervention in the Indian context.

HYPOTHESES

1. There is no significant difference in the character strength of adolescents before and after the intervention.

2. There is no significant difference in the wellbeing of adolescents before and after the intervention.

3. There is no significant difference between the experimental group and the control group on post-test scores.

CHAPTER 3
METHODOLOGY

3.1 Overview

Through this chapter, the methods, research design, procedure, and materials used will be introduced. This chapter introduces the study's research design and then states the objectives and hypotheses of the study. The definition of key variables in the study has been explored, and the variables are stated. As the study sample is an important part, further the technique of sample selection and the population/universe of the study is explained. Further, the criteria for selecting samples and ethics followed throughout the data collection are discussed. After that, the tools used for collecting data and the procedure followed for data collection are debriefed. Further, the intervention framework, including a list of home-based and class-based activities, is provided. Then the data analysis methods used for the analysis of data are described, and following that, by the end of the chapter, a conclusion and discussion of methods followed are provided.

3.2 Research design

The descriptive method explores various demographic variables and studies character strength and wellbeing based on demographical variables. Explorative and experimental research using pretest and posttest design is used in this study. Here, adolescents' character strength and wellbeing are explored and further used experimental method to study whether the intervention program effectively develops character strength and wellbeing of adolescents. The pre-test post-test method using the experimental and control group is used.

Figure 3.1 Research design

Experimental Group (Pre-Test)	X (Intervention Program)	Experimental Group (Post-test)
Control Group (Pre-Test)	No Intervention	Control Group (Post-test)

3.3 Operational Definition

3.3.1 Character strength

They are the basic building blocks of human goodness and flourishing. They are stable, universally, and widely accepted by different cultures, religions, and philosophers. It led to virtues such as wisdom, courage, humanity, justice, temperance, and transcendence (Peterson & Seligman, 2004), where virtues are Positive traits reflected in our thoughts, behavior, and feelings (Carr, 2013).

3.3.2 Wellbeing

The theory of Wellbeing by Seligman states that the five elements such as positive emotions, engagement, relationship, meaning, and accomplishment (PERMA) contribute to human flourishing. These elements will lead to psychological Wellbeing and happiness. (Goodman et al., 2018).

3.3.3 PERMA

PERMA (Positive emotions, Engagement, Relationships, Meaning, and Achievement) is a conceptual model by Martin Seligman, developed as a guide to help individuals find paths to flourishing. Seligman believes that domains of wellbeing or PERMA can help an individual to find paths to happiness, fulfillment, and meaning (Seligman, 2011).

3.3.3.1 Positive Emotions. The feelings of happiness such as feeling joyful, cheerful, and content. They are linked to character strengths like love, hope, and gratitude. It's all about positive emotions related to the past, present, and future.

3.3.3.2 Engagement. The feeling of getting absorbed while involved in an activity. It is related to character strengths such as curiosity, perseverance, and zest.

3.3.3.3 Relationships. It is the connection between an individual and the significant others. It's being supported and cared for by others, and having good social connections and relationships. The relationship is linked with character strengths like honesty, kindness, social intelligence, teamwork, fairness, leadership, and (interpersonal) forgiveness.

3.3.3.4 Meaning. It is when a person believes that his or her life is valuable and feeling connected with something greater than oneself or some higher powers. Meaning for one's life differs based on an individual's personality. For some people meaning is all about being connected with greater powers. For others, meaning is all about having a better academic or successful career life. Some people find meaning through contributing to society by involving in social services. Meaning is linked with the strengths such as perspective, appreciation of beauty and excellence, and spirituality

3.3.3.5 Achievement. An individual's sense of achievement is having progress towards goal attainment and believing in one's capacity to achieve the goals. It is connected to the character strengths like creativity, judgment, bravery, love of learning, self-regulation, prudence, humor, humility, and perseverance, and zest.

3.3.4 Adolescence

According to Hurlock, "Adolescence is the period of transition between childhood and adulthood that involves biological, cognitive, and socio-emotional changes" (Hurlock E., 1981). Adolescence begins from 10 to 13 years and ends between

the ages ranges of 18-20 years. Adolescence is categorized into three groups such as early adolescence (age 10 to 14), middle adolescence (age 15-19), and late adolescence (age 19-24). This study is focusing on young/early adolescents.

3.4 Variables

3.4.1 Independent Variable

PERMA based intervention

3.4.2 Dependent Variable

Character strength and wellbeing of adolescents

3.4.3 Demographic variables

1. Type of family (joint or nuclear)
2. Age
3. Gender (Male and Female)
4. Religion (Hindu, Christian, Muslim)
5. Birth order (Firstborn, the second-born, and third born)
6. Number of siblings (Single child, one sibling, two siblings, and three siblings)

3.5 The universe of the study

Early Adolescents in Kerala belong to the age group of 13 and 14.

3.5.1 Geographical area

The semi-urban areas in the southern part of Kerala.

3.6 Sample Distribution- Inclusion Criteria

1. School going adolescents
2. Age limit from 13-17
3. Adolescents only from the southern part of Kerala
4. Students of CBSE schools
5. Students who have been there in the school for at least one year
6. Schools from semi-urban areas
7. Students who live with their parents or guardians.

8. Students who stay at the home

9. Students without any learning disabilities

3.7 Sample and techniques

The population is the school-going adolescents of the southern districts of Kerala. Adolescents of the age group of 13 and 14. Students from eighth grade participated in the study. The data is collected from 154 participants, and the intervention program is conducted in CBSE schools which given consent to do so. The participants who were willing to be part of the study and those who obtained consent from parents are only part of the study.

Figure 3.2 Pie chart showing the number of participants in the experimental and control group
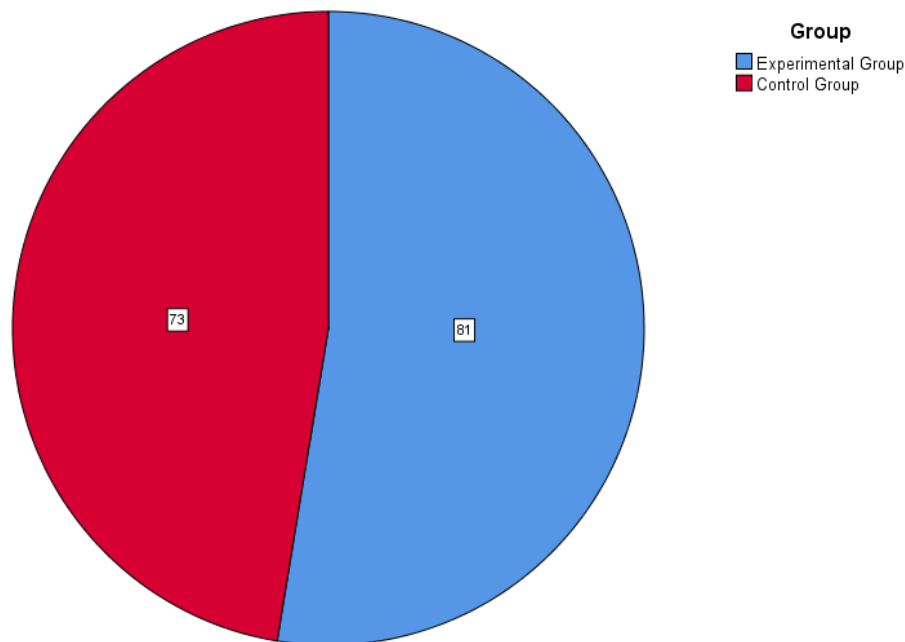
The total number of participants in the study is 154. Figure 3.1 shows 81 participants in the experimental group and 73 participants in the control group.

Figure 3.3 Pie chart showing the number of male and female participants in the study
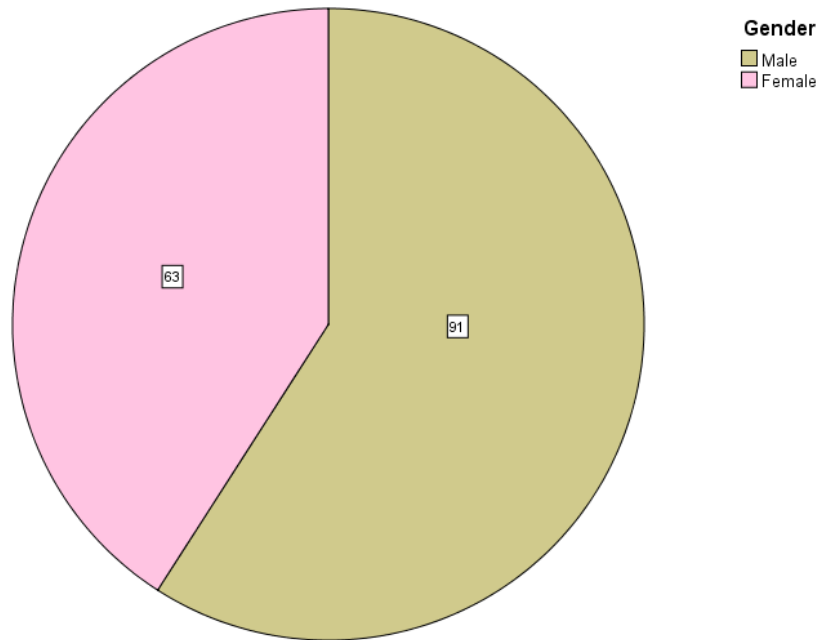
Figure 3.3 shows that out of 154 participants, 91 male and 63 female participants were there.

Figure 3.4 Pie chart showing the number of participants from joint family and nuclear family
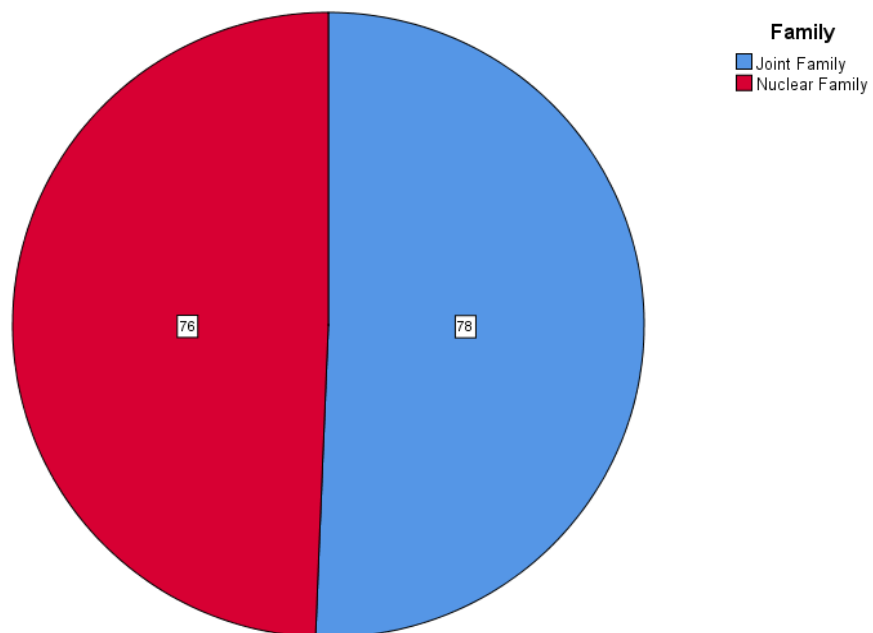
Figure 3.4 is the pie chart shows that there were 78 participants from a joint family and 76 participants from a nuclear family.

Figure 3.5 Pie chart showing the number of participants belongs to religions such as Hindu, Christian, and Muslim
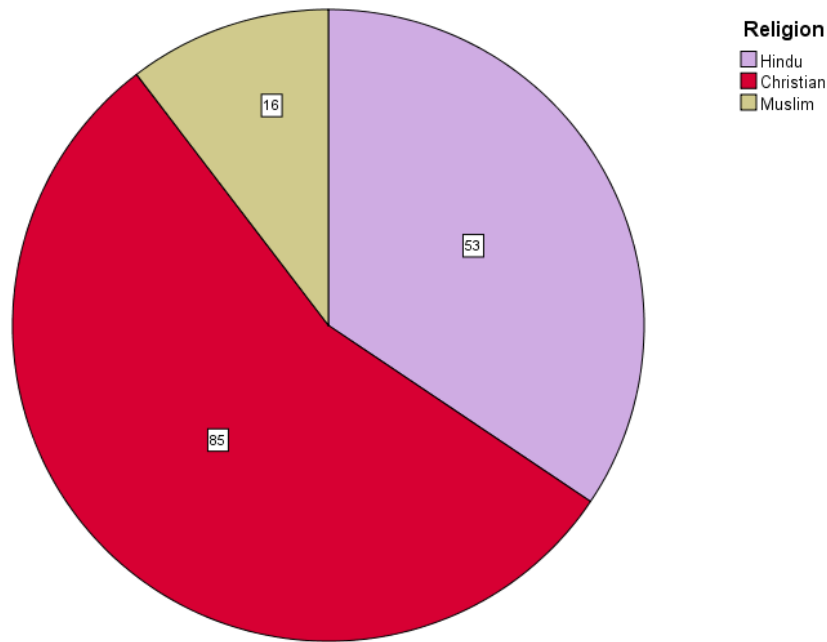
Figure 3.5, showing the number of participants based on religion, shows that 53 participants belong to the Hindu religion, 85 participants from the Christian religion and 16 participants belong to the Muslim religion.

Figure 3.6 Pie chart showing the number of participants based on their birth order such as firstborn, second born, and third born
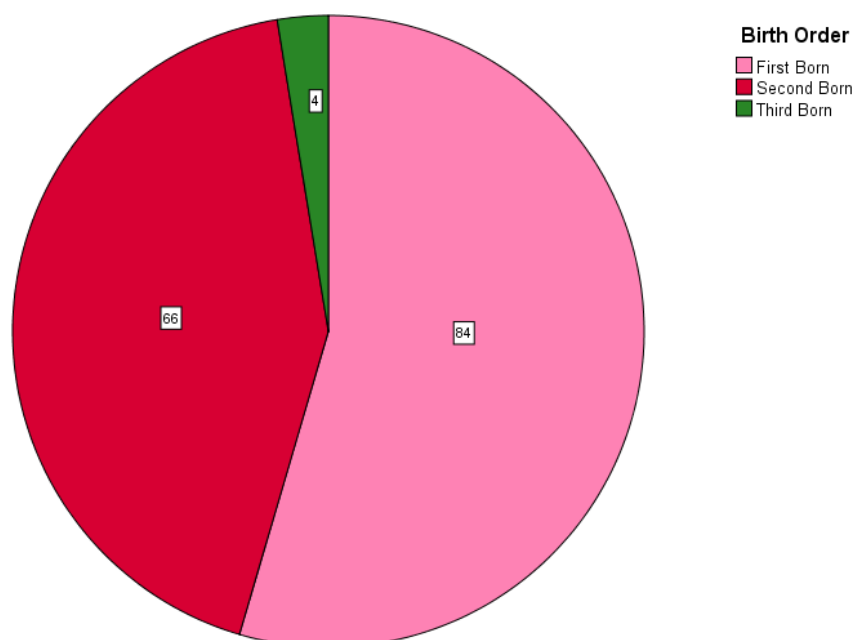
Figure 3.6 shows that 84 firstborn participants, 66 second-born participants, and four third-born participants participated in the study.

Figure 3.7 Pie chart showing the number of participants based on the number of their siblings such as single child, with one sibling, two siblings, and three siblings
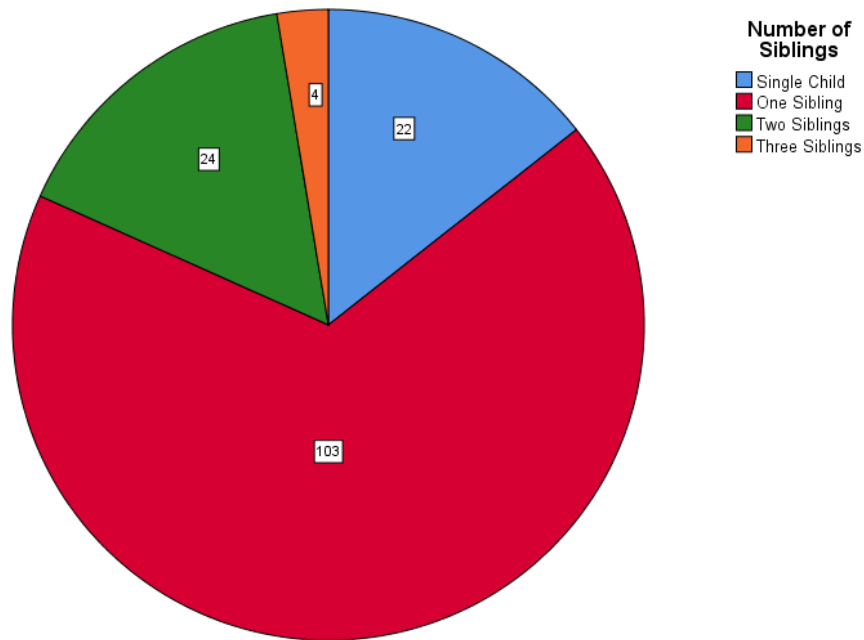
Figure 3.7 showing the number of participants based on their number of siblings. There were 22 single children, 103 participants with one sibling, 24 participants with two siblings, and four participants with three siblings.

3.8 Research ethics

The sample consist of adolescents from age 13-14, as they are minor, the parental consent is obtained before pretest. After obtaining consent from schools, parents, and adolescents, those who have given consent are selected to participate in the study. The consent from parents, adolescents, and the school principal, and management for conducting data collection and intervention program are obtained.

3.9 Measuring Tools for the study

For collecting data during the pre-test, socio-demographic measures, the VIA Inventory of strength for youth, and PERMA profiler is used. The researcher used the VIA inventory for youth and the PERMA profiler to collect data during the post-test.

To collect data, the following measures are used in the study,

1. Socio-demographic measures

2. VIA Inventory of Strengths for Youth (VIA-Youth) by Christopher Peterson and Nansook Park

3. PERMA Profiler by Julie Butler and Margaret L. Kern

3.9.1 Description of the measures

3.9.1.1 VIA Youth- 96. In the beginning, Christopher Peterson and Nansook Park developed a 198-item version of VIA youth, and then they derived a brief version with 96 items (Park & Peterson, 2006). Mean internal consistency reliability for 198 version inventories is .82, and for the brief version, it is .86 and has a .36 correlation with life satisfaction. It has been found out that the 96-item version is more efficient than the 198-item version, and it is as valid as the more extended version. It is used to assess the character strength of youth from ages 13 to 17, and items represent all 24-character strengths with four items per character strength. The questionnaire has good reliability and validity, and it has been used and translated into 41 languages. The online version of this inventory is open to all, and the conditions and terms should be followed for other uses of the inventory.

3.9.1.2 PERMA profiler. PERMA profiler is a 23-item questionnaire developed by Julie Butler and Margaret L. Kern in 2016. There were questionnaires for assessing five dimensions of PERMA but were limited to one or three items per domain, questioning the reliability. Thus, the researchers developed this questionnaire with three items per domain. PERMA profiler has good model fit, internal and cross-time consistency, and content, divergent, and convergent validity. Around 31966 participants were tested with the profiler, and it was developed to its final form of 23 items based on a vast number of studies. Three items assess engagement from the total number of 23 items, three items are based on the domain of positive emotions, three items assess engagement, three items assess the relationship, three items assess the meaning, and three items assess accomplishment. They also added eight additional items to disrupt tendencies during responding and gain much more information about participants. These items include one item for assessing overall wellbeing, three items to evaluate negative emotions such as sadness, anger, and anxiety, 1 item for assessing loneliness, and three items to assess the perception about their physical health. It will take around a minimum of five minutes to a maximum of 18 minutes to finish the questionnaire. The questionnaire applies wide across the world. This study will help discover the sensitivity of PERMA scores to implement intervention programs (Butler & Kern, 2016).

3.10 Method of Data Collection

The data is collected by approaching the institution. In the first stage of data collection, the informed consent from institutions is obtained and met the adolescents on the first day and provided with the parental informed consent form and instructed to obtain consent from their parents by the next day. The informed consent for each student is provided, and participants who received consent from their parents are selected for the study. Then they are given questionnaires in a group, and instructions are given to provide appropriate responses to the statements provided. Scoring sheets are collected for further analysis. Then the signature strength of adolescents is identified individually. Individual cards on the strengths and their ranking are provided. Adolescents are given their signature strength details and meaning of strengths.

A strength Diary named 'My Strength Log' is provided for each student, consisting of details on their signature strengths and lesser strengths. Activities and tasks are incorporated into the diary. The intervention consists of both school-based and home-based activities. School-based activities are finished in the class, while they finish home-based activities at home. There were 10 sessions, and each session extended up to one or two hours. The sessions are conducted on alternative days. Activities include outdoor, indoor, home-based, class-based, individual, and group-based activities. Journalizing and monitoring of exercises happened simultaneously. By completing the strength diary and strengths-based exercises using PERMA framework, VIA Inventory of Strengths for Youth (VIA-Youth), and PERMA-Profiler are administered and assessed again to know the effectiveness of the intervention. The activities are developed based on previous studies, findings, and guidelines put forth by Seligman and other researchers.

Figure 3.8 Flowchart showing Procedure of study
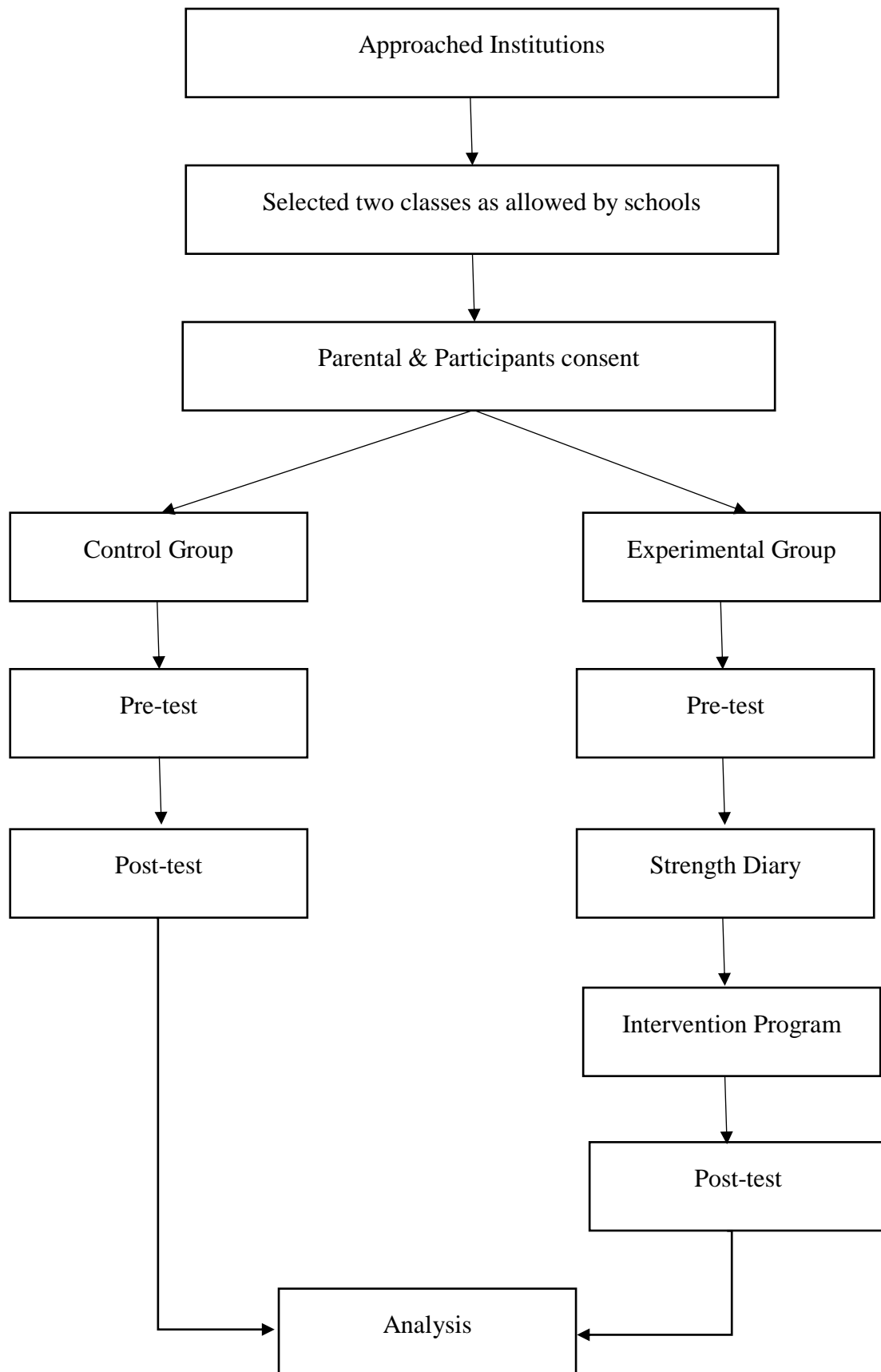
3.11 Intervention Framework

Character strength interventions include four learning elements, theoretical knowledge, and recognition of strengths, action, and reflection. Theoretical knowledge is when one can understand what is strengths or giving a proper explanation about strengths. Providing theoretical knowledge about each character strength is essential for developing strengths. Then the second element is recognition, the trainer should encourage the group to recognize their strengths. When one gains theoretical knowledge, through proper examples from daily life, or film characters, individuals should be able to identify their strengths. Then the actions should be encouraged, where the participants should be encouraged to use their strengths in different ways in their daily lives. Then participants should be encouraged to reflect on the use of their strengths and analyze how they used their strengths, it's results, and how they felt about using them in their real-life situations (Lavy, 2020). As stated by Lavy, this intervention includes activities in different sessions, follow-up exercises are included, and training is given by an external trainer. Thus, in this study, theoretical knowledge about character strengths is given at the beginning of the program by explaining each strength and using descriptions provided in the activity book "My Strength Log". Then during the first part of the intervention, participants are encouraged to recognize their strengths and to identify the strengths of characters in the film and their friends. Actions are encouraged through various activities focused on using strengths such as writing a gratitude letter, counting blessings, group activities, role play, etc. In the activity book, after each activity, they are asked to report how they felt using their strengths, which helps them to reflect about their strength use and how they felt while using each strength. Activities are conducted in ten sessions, each activity is related to each character strength, and these character strengths fall under PERMA elements (Wellbeing). Home-based and class-based interventions, including discussions, group activities, individual activities, demonstration, training, etc., are incorporated with introspection and proper interval. Pre-test and Post-test are administered before and after the intervention program.

Table 3.1 Intervention Framework

Time	Class-based Activities	Home-based Activities
1 hour	**Pre-test**	
	Administering questionnaires Via inventory for youth Well-being measure	
Session 1		
10 min.	Activity 1: Score summary provided	Activity 1: Identify and write strength in characters of film you have watched My friends' strengths
40 min.	Activity 2: Teaching strengths	
5 min.	Interval	
30 min.	Activity 3: Showing short film- Strength identification	
15 min.	Orientation about program	
Positive Emotion		
Love		
Session 2		
5 min.	Homework discussion	
15 min.	Activity 4: They are giving and taking positive feedback about all their classmates.	Activity 2: Write two things you planned to do with your parents (help or other activities).
5 min.	How you felt regarding feedback	
15 min.	Activity 5: Group activity- with the help of few coloring materials, finish the task of coloring the printed pictures provided by the instructor.	
5 min.	Introspective report	

5 min.	Interval	
Hope		
20 min.	Activity 6: Motivational talk – sharing the stories of real-life heroes like Sudha Chandran, Arunima Sinha, Dr. Suresh Advani.	Activity 3: Write about four realistic goals and ways to achieve them.
5 min.	Introspective report	Activity 4: Interview with the successful person you know in your life and learn their story behind the success
Gratitude		
15 min.	Activity 7: Write a gratitude letter to your loved one (guardian, parents)	Activity 5: Make a beautiful and creative gratitude card by yourself, and give it to one of your favorite teachers in the school.
5 min.	Introspective report	Activity 6: Counting your blessings
5 min.	Interval	
Engagement		
Curiosity		
20 min.	Activity 8: Find other classmates who have signature strengths like you.	Activity 7: Write a silly question you ever had in your mind. Ask that to others and try to find the answers and share in class

5 min.	Introspective report	
Session 3		
10 min.	Discussion on homework	
30 min.	Activity 9: Find some interesting facts related to your area of interest- 10 points, share them in class	
Perseverance		
50 min.	Activity 10: Ball in bowl	Activity 8: Solving puzzle
	Passing the light	
5 min.	Introspective report	
Zest		
	Outside activities	Activity 9: Find your hobby (the thing you like to do which energizes you) and use it
Relationship		
Honesty		
20 min.	Activity 11: Role-play with three people- one who sells a cloth honestly and the other who sell an item without being honest – class will be asked to judge their behavior.	Activity 10: Write about one incident you were not honest and one incident you were honest- express your feelings in both situation
5 min.	Introspective report	
Kindness		

One day- 30 min.	Activity 12: Lunch with love- dedicate a lunch for someone in need.	Activity 11: Do a good deed to others- a helping hand.
	Introspective report	
	Session 4	
Social intelligence		
10 min.	Discussion on home-based activity	
30 min.	Activity 13: Group activity- participants must select a social situation and do demonstrate an emotional crisis and how do they manage it- how they felt	
5 min.	Introspective report	
20 min.	Teaching them verbal and non-verbal cues in communication	
5 min.	Interval	
Fairness		
10 min.	Activity 14: Through a small activity, demonstrate and introduce them to the concept of what it means to be unfair.	Collect their responses on how they felt when the instructor been unfair to them
5 min.	Introspective report	
		Activity 12: Ask them to write about an incident where they felt someone being unfair to them
Leadership		
25 min.	Activity 15:	Activity 13:

	A list of tasks will be given; the group will choose a leader, and the leader will select an activity, and they will do it. Finally, there will be a discussion about the leader's behavior.	Write about a leader and his or her character.
5 min.	Introspective report	
10 min.	Educating about different leadership styles.	

	Session 5	
Forgiveness		
15 min.	Discussion on home-based activities	
20 min.	Activity 16: Write about an incident where someone hurt you and the feelings you underwent. Stand in the foot of the other person who hurt you and justifies their side.	Activity 14: Write about their ideas on forgiving others and its benefits, rather than taking revenge on others
5 min.	Introspective report	
Teamwork		
15 min.	Activity 17: Inside out- Holding hand, stand in a circle facing outside the ring and then face inside the circle without breaking the chain.	
10 min.	Introspective report	
5 min.	Interval	
Meaning		
Perspective		
20 min.	Activity 18:	Activity 15:

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	Ask for an issue faced by your friend and suggest possible solutions for the problems.	Write about someone you consider as wise (friend, family, etc.) And write the reason behind it.
5 min.	Introspective report	
		Activity 16: Recall an incident where you needed advice and advice yourself.
Appreciation of Beauty and excellence		
15 min.	Activity 19: Exhibit your skills or talents	Activity 17: Write about the quality you like the most in yourself.
5 min.	Introspective report	
		Activity 18: Write about the beautiful things you observed today.
Session 6		
Spirituality		
55 min.	Activity 20: Training on a guided visualization.	Activity 19: Write about your spiritual model and your concept of spirituality.
5 min.	Introspective report	
		Activity 20: Share how your belief helped you in a difficult situation.
20 min.	Discussion on home-based activities	
5 min.	Interval	
Accomplishment		
Creativity		
30 min.	Activity 21:	Activity 21:

	Create something using newspaper-work in a group	Finish the picture in a creative way
5 min.	Introspective report	Activity 22: Images given, write up ways you can use creatively
Session 7		
20 min.	Discussion on home-based activities	
Judgment		
10 min.	Activity 22: Sharing a case study of judgments that happened in courts.	Activity 23: Cards with pictorial representations will be provided for each student, and they should judge the behavior of the characters in the story
20min.	Activity 23: Discussion in class regarding some issues happening in society- class will be divided into groups, and one newspaper cutting will be given regarding a recent issue. They should judge it from all perspectives.	
Bravery		
15 min.	Activity 24: Use your non-preferred hand to write a paragraph	Activity 24: Think about a challenging situation for you and write about how to work on that. Write all positive thoughts which can replace the negative thoughts during challenging situations.
5 min.	Introspective report	
5 min.	Interval	

Love of learning		
20 minutes	Teach a skill needed for daily life.	Activity 25: Add to the chart- add a piece of new information to the chart put in the classroom by the instructor.
20 min.	Activity 25: Learn a new word, its meaning, and use it in a sentence- share in class	
Session 8		
Self-regulation		
55 min.	Activity 26: Stress management training- Breathing exercises and muscle relaxation will be taught.	Activity 26: Use of non-preferred hand
5 min.	Introspective report	
	Discussion regarding homework	
	Interval	
Prudence		
30 min.	Activity 27: Have a group discussion on significant issues in adolescence and make a poster for creating awareness	Activity 27: Think about a situation you were careful of and write on the reason for being that much care.
5 min.	Activity 28: Solving maze without mistakes.	
Session 9		
Humor		
10 min.	Discussion on home-based activity	

30 min.	Activity 29: Share a joke	Activity 28: Think and write about a humorous situation that happened in your life
Humility		
20 min.	Activity 30: Sharing real-life stories of famous people with humility- Actor Rajinikanth, Mark Zuckerberg, Mother Teresa- Teaching ways to practice humility	Activity 29: Count the kind acts you have ever done to anyone.
5 min.	Introspective report	
Session 10		
15 min.	Discussion on home-based Activity	
60 min.	Post-test	
Post-test		
30 min.	Sharing results and collecting feedback	
15 min.	Thanking school, management, teachers, students, and parents	

3.12 Statistical Analysis

Data collected is analyzed using different statistical techniques with the help of Excel and SPSS software. Descriptive statistics such as mean and standard deviation is used to study character strength and PERMA of participants. It is used to describe the character strength and PERMA, based on demographic variables such as gender (Male and Female), religion (Hindu, Christian, and Muslim), birth order (Firstborn, Secondborn and third born), number of siblings (Single child, one sibling, two siblings, and three siblings), and type of family (Nuclear family and Joint family).

Further used parametric tests such as ANOVA and t-test. ANOVA is used to study the significant difference between groups (Experimental and Control group), Gender (Male and Female), family (Joint and Nuclear family), religions (Hindu, Christian, and Muslim), birth orders (Firstborn, second born, and third born) and the number of siblings (Single child, one sibling, two siblings, and three siblings). Paired sample t-test is used to study significant differences before and after the intervention. An independent sample t-test is used to study the significant difference between the experimental group and control group on pre-test and post-test. The data is analyzed and interpreted using these statistical techniques.

3.13 Conclusion

In this chapter, the research design and methods used are discussed. The sample and data collection procedure are described, and the intervention framework and statistical analysis used are also described. Further, the collected data will be analyzed using statistical techniques, and the next chapter focuses on analysis and discussion of data.

CHAPTER 4

RESULTS AND DISCUSSION

The method followed is discussed in the previous chapter. In this chapter, the data analysis results using different statistical techniques to study the study's objectives and hypotheses are discussed. Descriptive statistics are used to study the characteristics of participants. Various statistical analysis such as ANOVA and t-test is used to analyze the data collected and determine the results of this study.

Table 4.1 Showing number of participants, the mean and standard deviation of character strength and wellbeing of participants

Variable	N	Mean	SD
Character Strengths			
Appreciation of beauty and excellence	154	4.10	0.77
Bravery	154	3.45	0.84
Love	154	3.95	0.77
Prudence	154	3.17	0.74
Teamwork	154	3.58	0.78
Creativity	154	3.44	0.83
Curiosity	154	3.55	0.90
Fairness	154	3.60	0.74
Forgiveness	154	3.82	0.78
Gratitude	154	4.00	0.77
Honesty	154	3.06	0.67
Hope	154	3.87	0.77
Humor	154	3.81	0.97
Perseverance	154	3.05	0.78
Judgment	154	3.49	0.86
Kindness	154	3.81	0.79
Leadership	154	2.80	0.86
Love of Learning	154	3.55	0.98
Humility	154	3.13	0.87
Perspective	154	3.11	0.84
self-regulation	154	3.05	0.67
Social Intelligence	154	3.61	0.73
Spirituality	154	4.10	0.79
Zest	154	3.71	0.80
PERMA			
Positive Emotions	154	21.61	5.44
Engagement	154	22.25	4.91
Relationship	154	23.20	4.75
Meaning	154	21.01	5.29
Accomplishment	154	20.36	4.77

Table 4.1, showing the number of participants, mean and standard deviation of character strength, and wellbeing of participants, indicates that there were 154 participants in the study. The mean score for character strengths such as appreciation of beauty is 4.10, and the standard deviation is 0.77. The mean score for bravery is 3.45, and the standard deviation is 0.84. For love, participants have a mean score of 3.95 with a standard deviation of 0.77. A mean score of 3.17 and SD of 0.74 for prudence mean 3.58 with an SD of 0.78 for teamwork strength. For creativity, the mean score obtained is 3.44 with an SD of 0.83. For curiosity, the mean is 3.55, and SD is 0.90. For fairness, the mean is 3.60 and SD of 0.74. For character strength of forgiveness, the mean score is 3.82 with an SD of 0.78. For the strength of gratitude, the mean score is 4 with an SD of 0.77. For honest, the mean is 3.06and SD of 0.67. The mean score for hope, humor, perseverance, judgment, and kindness are 3.87, 3.81, 3.07, 3.49, and 3.81, with SD of 0.77, 0.97, 0.74, 0.86, and 0.79, respectively. Participants have mean scores of 2.80, 3.55, 3.13, 3.11, 3.05, and 3.61, respectively, for strengths of leadership, love of learning, humility, perspective, self-regulation, and social intelligence with an SD of 0.86, 0.98, 0.87, 0.84, 0.67 and 0.73. For character strength of spirituality, participants have a mean score of 4.10 with an SD of 0.79. Mean score of 3.71 with SD of 0.80 for the strength of zest.

Similarly, for elements of wellbeing, Positive Emotion, Engagement, Relationship, Meaning, and Accomplishment, they have a mean score of 21.61, 22.25, 23.20, 21.01, and 20.36, respectively, with SD of 5.44, 4.91, 4.75, 5.29, and 4.77 for each element.

Figure 4.1 Bar chart showing mean order of character strength of participants
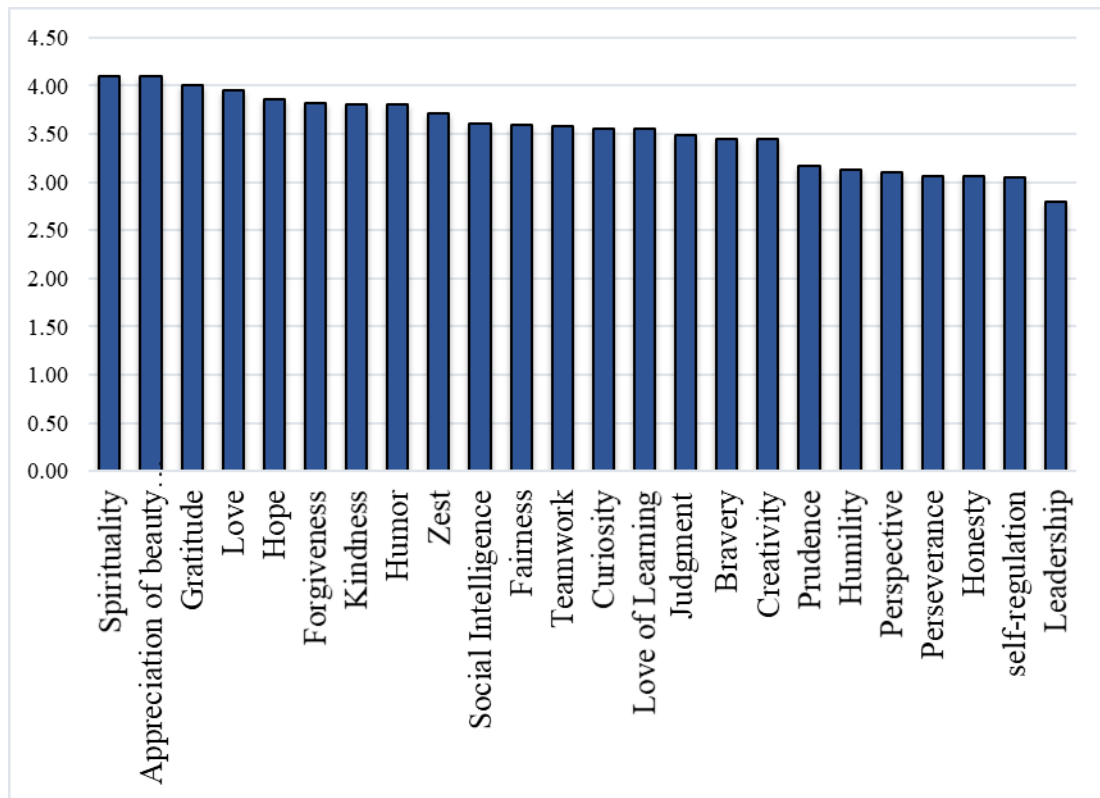
Figure 4.1 shows the order of character strength of participants for the mean score obtained. It shows that participants have a mean higher power of spirituality, appreciation of beauty and excellence, gratitude, love, hope, forgiveness, and kindness. Following that, the strengths are humor, zest, social intelligence, fairness, teamwork, and curiosity, love of learning, judgment, bravery, and creativity. The mean lesser strengths include prudence, humility, perspective, perseverance, honesty, self-regulation, and leadership. Thus the highest mean score is obtained for spirituality, and the lesser mean score is obtained for leadership.

Similar to previous studies, the five strengths with the highest scores include love and gratitude, and the lowest five include self-regulation (Brdar et al., 2011). similarly, lower ranking in strengths such as self-regulation and prudence is also evident (Peterson et al., 2007).

Figure 4.2 Bar chart showing mean order of PERMA of participants
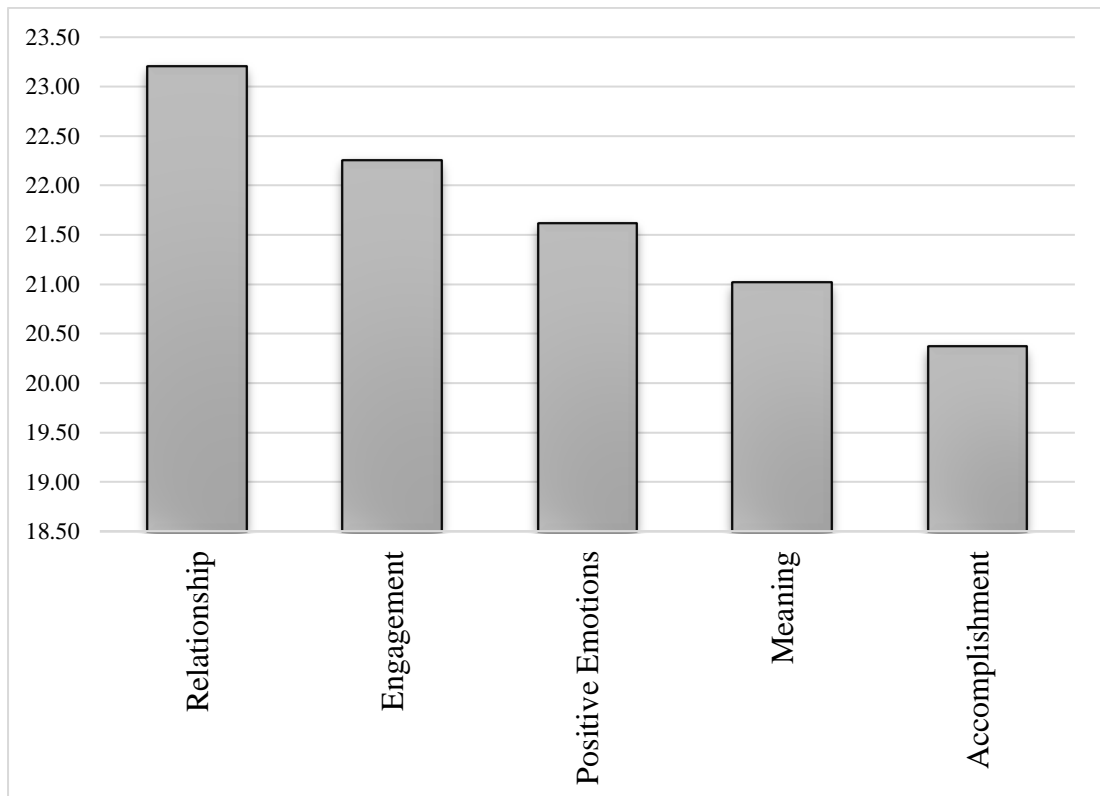
Figure 4.2 shows that the mean score for relationship is higher than other PERMA elements, and the comparatively lower mean score is for accomplishment. Engagement is the second element with a mean score greater than positive emotion and meaning as well as positive emotion has a greater mean score than meaning and accomplishment.

Table 4.2 shows the mean, number of participants, and standard deviation of character strength and PERMA of the experimental and control group

Character strengths and PERMA	Experimental Group			Control Group		
	N	Mean	SD	N	Mean	SD
Character Strength						
Appreciation of beauty and excellence	81	4.17	0.80	73	4.02	0.73
Bravery	81	3.44	0.89	73	3.47	0.79
Love	81	3.87	0.74	73	4.04	0.79
Prudence	81	3.10	0.72	73	3.24	0.77
Teamwork	81	3.53	0.78	73	3.63	0.79
Creativity	81	3.45	0.85	73	3.43	0.81
Curiosity	81	3.57	0.92	73	3.52	0.89
Fairness	81	3.59	0.74	73	3.60	0.75
Forgiveness	81	3.83	0.86	73	3.80	0.70
Gratitude	81	3.90	0.83	73	4.12	0.68
Honesty	81	3.00	0.67	73	3.12	0.68
Hope	81	3.81	0.83	73	3.92	0.70
Humor	81	3.83	0.97	73	3.78	0.96
Perseverance	81	3.00	0.75	73	3.14	0.73
Judgment	81	3.47	0.83	73	3.52	0.90
Kindness	81	3.86	0.74	73	3.76	0.84
Leadership	81	2.71	0.90	73	2.90	0.82
Love of Learning	81	3.60	1.04	73	3.50	0.92
Humility	81	3.06	0.89	73	3.21	0.85
Perspective	81	3.13	0.78	73	3.08	0.90
self-regulation	81	3.11	0.63	73	2.98	0.72
Social Intelligence	81	3.60	0.82	73	3.62	0.63
Spirituality	81	4.05	0.88	73	4.16	0.67
Zest	81	3.71	0.89	73	3.72	0.70
PERMA						
Positive Emotions	81	20.98	4.88	73	22.32	5.96
Engagement	81	21.70	4.86	73	22.85	4.94
Relationship	81	22.53	4.96	73	23.95	4.43
Meaning	81	20.59	5.37	73	21.47	5.21
Accomplishment	81	20.36	4.91	73	20.36	4.63

Table 4.2 shows the number of participants, mean score, and standard deviation for each character strength and PERMA of the control and experimental groups in the pre-test. There were 81 participants in the experimental group and 73 participants in the control group. The mean score for appreciation of beauty and excellence is 4.17 for the experimental group with an SD of 0.80 and 4.02 for the control group with an SD of

0.79. while experimental group have mean score of 3.44, 3.87, 3.10, 3,53, 3.45, 3.57 and 3.59 respectively for bravery, love, prudence, teamwork, creativity, curiosity, and fairness with SD of 0.89, 0.74, 0.72, 0.78, 0.85, 0.92 and 0.74 . The control group has a mean score of 3.47, 4.04, 3.24, 3.63, 3.43, 3.53, and 3.60, respectively, for strengths such as bravery, love, prudence, teamwork, creativity, curiosity, and fairness with an SD of 0.79 for both bravery, love and teamwork, 0.77 for prudence, 0.81 for creativity, 0.89 for curiosity and 0.75 for fairness. Forgiveness, gratitude, honesty, hope, humor, perseverance, judgment, kindness, leadership, love of learning and humility has mean scores of 3.83, 3.90, 3.00, 3.81, 3.83, 3.00, 3.47, 3.86, 2.71, 3.60 and 3.06 respectively with SD of 0.86, 0.83, 0.67, 0.83, 0.97, 0.75, 0.83, 0.74, 0.90, 1,04 and 0.89 for experimental group. And for control group, mean scores are 3.80, 4.12, 3.12, 3.92, 3.78, 3.14, 3.52, 3.76, 2.90, 3.50 and 3.21 with SD of 0.70, 0.68, 0.68, 0.70, 0.96, 0.73, 0.90, 0.84, 0.82, 0.92 and 0.85 respectively.

For the strength of the experimental perspective, the group has a mean score of 3.13 with an SD of 0.78, and the control group has a mean of 3.08 with 0.90. For strengths such as self-regulation, social intelligence, spirituality, and zest, the experimental group has a mean score of 3.11, 3.60, 4.05, and 3.71 with SD of 0.63, 0.82, 0.88, and 0.89. The control group has mean scores of 2.98, 3.62, 4.16, and 3.72 with SD of 0.72, 0.63, 0.67, and 0.70, respectively, for self-regulation, social intelligence, spirituality, and zest.

For elements of PERMA such as positive emotions, engagement, relationship, meaning, and accomplishment, the experimental group has mean scores of 20.98, 21.70, 22.53, 20.59, and 20.36 with SD of 4.88, 4.86, 4.96, 5.77, 5.37, and 4.91, respectively. In contrast, the control group has mean scores of 22.32, 22.85, 23.95, 21.47, and 20.36 with SD of 5.96, 4.94, 4.43, 5.21, and 4.63 respectively for each element of PERMA.

Figure 4.3 Bar chart showing mean order of character strength of experimental group on pre-test
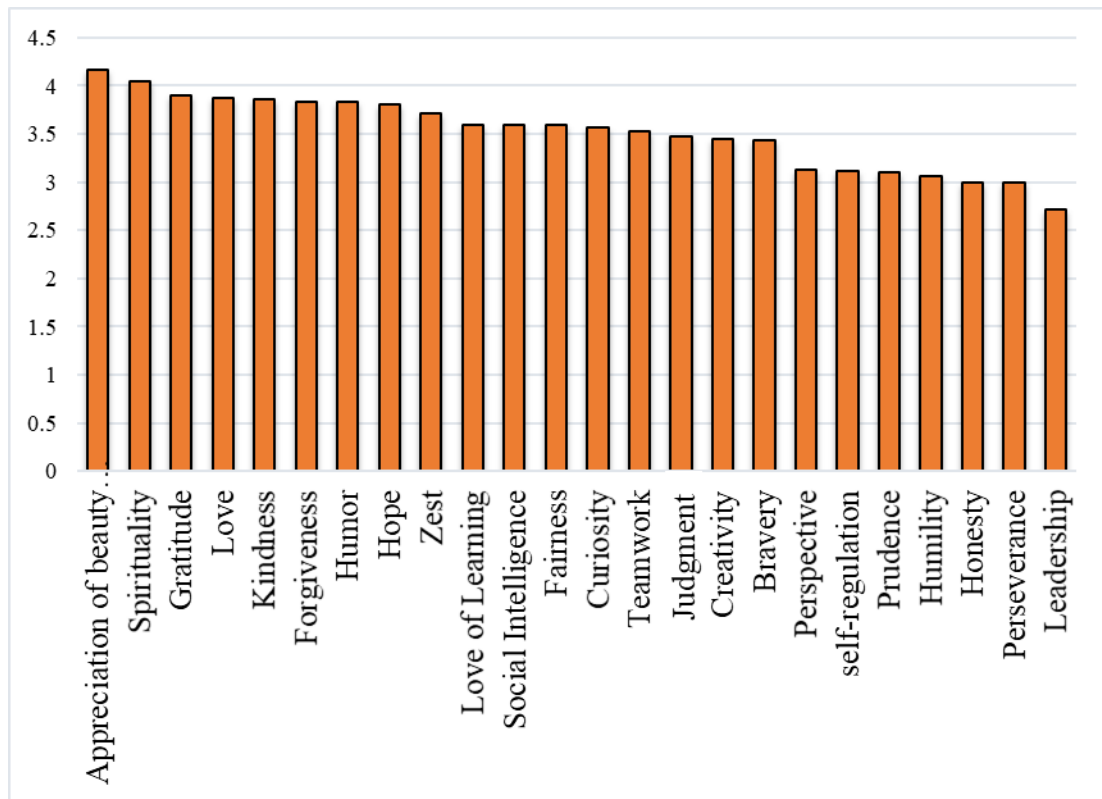
Figure 4.3 Bar chart showing mean order of character strength of experimental group on pre-test shows that rank of each character strengths based on mean obtained for the experimental group on the pre-test, which shows that the strength with comparatively higher means is the appreciation of beauty and excellence, then spirituality, following gratitude, love, kindness, and forgiveness. The strength with the relatively lower mean score is leadership. The highest to lowest mean score order for strengths is the appreciation of beauty and excellence, spirituality, gratitude, love, kindness, forgiveness, humor, hope, zest, love of learning, and social intelligence. Strengths with lower mean scores include fairness, curiosity, teamwork, judgment, creativity, bravery, perspective, self-regulation, prudence, humility, honesty, perseverance, and leadership in the order comparatively higher mean score to lower mean score.

Figure 4.4 Bar chart showing mean order of character strength of control group on pre-test
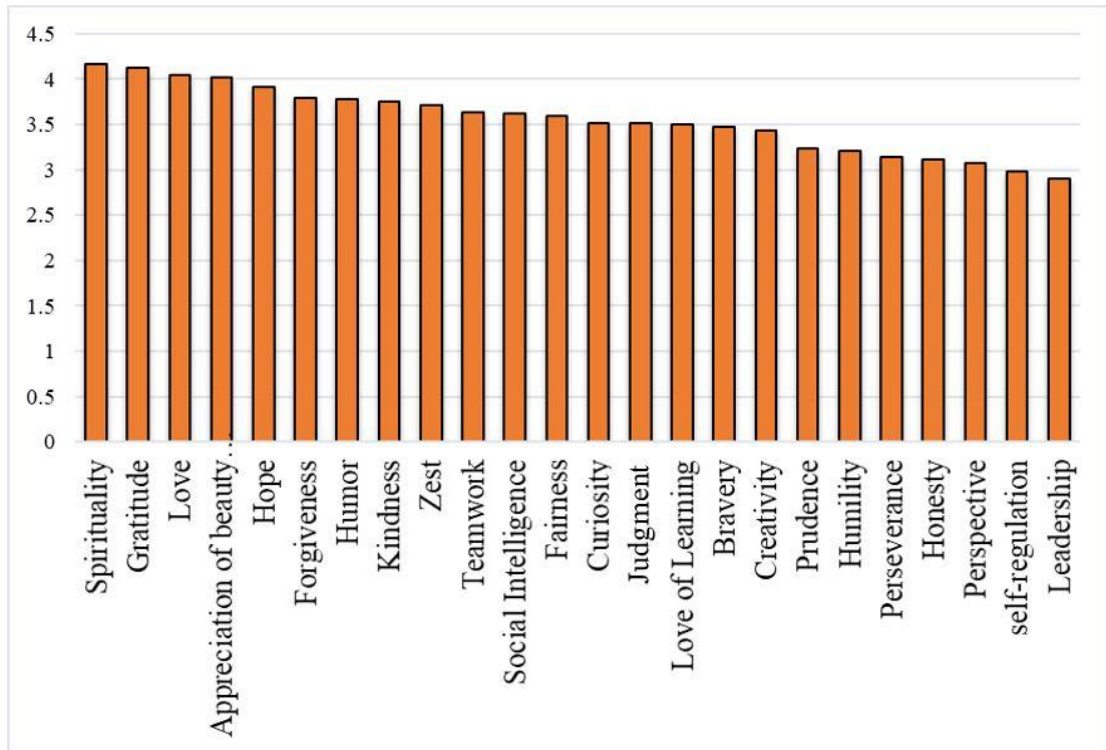
Figure 4.4 shows the mean order of character strength of the control group in the pre-test based on their mean score. It shows that the strength with a comparatively highest mean score is spirituality and the lowest mean score is leadership. The strength with the second highest mean score is gratitude, following love, appreciation of beauty and excellence, hope, forgiveness, humor, kindness, zest, teamwork, social intelligence, fairness, curiosity, judgment, love of learning, bravery, creativity, prudence, humility, perseverance, honesty, perspective, self-regulation and leadership in the order of highest to lowest.

Figure 4.5 Bar chart showing mean order of PERMA elements of the experimental group on pre-test
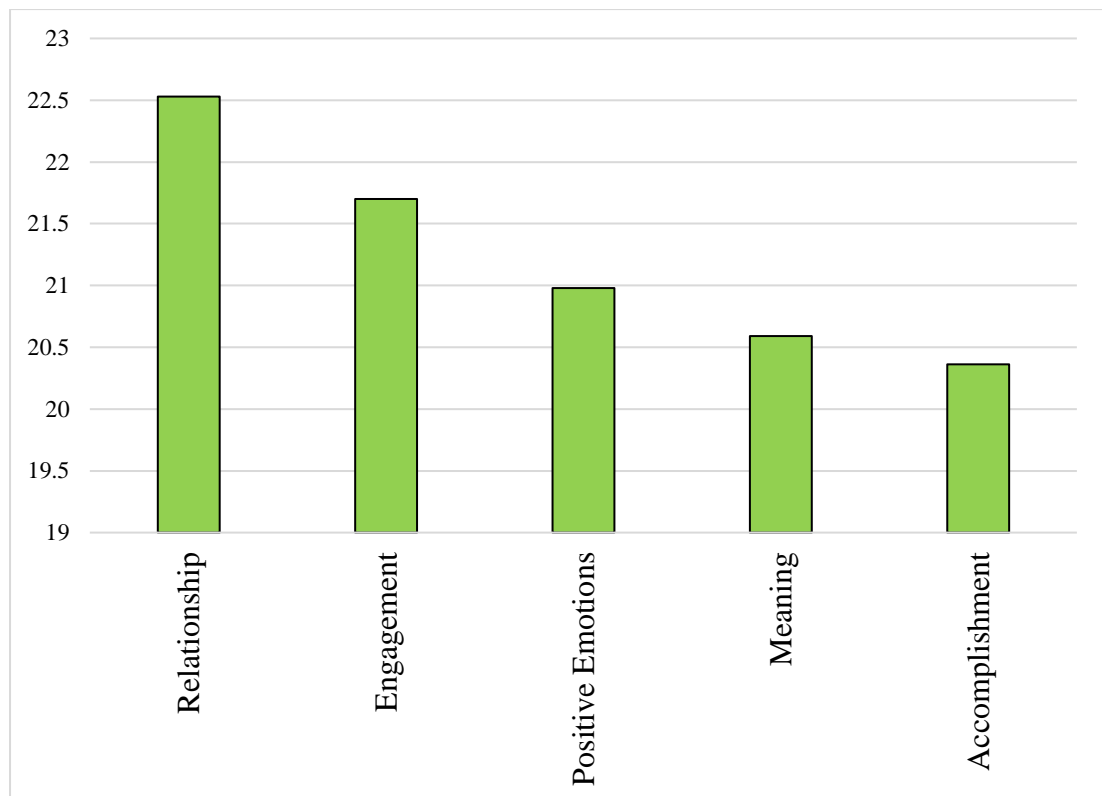
Figure 4.5 Bar chart showing mean order of PERMA elements of the experimental group on pre-test shows that the highest mean score for PERMA element of the relationship, the engagement following positive emotions and meaning. The lowest mean score is for accomplishment.

Figure 4.6 Bar chart showing mean order of PERMA elements of the control group on pre-test
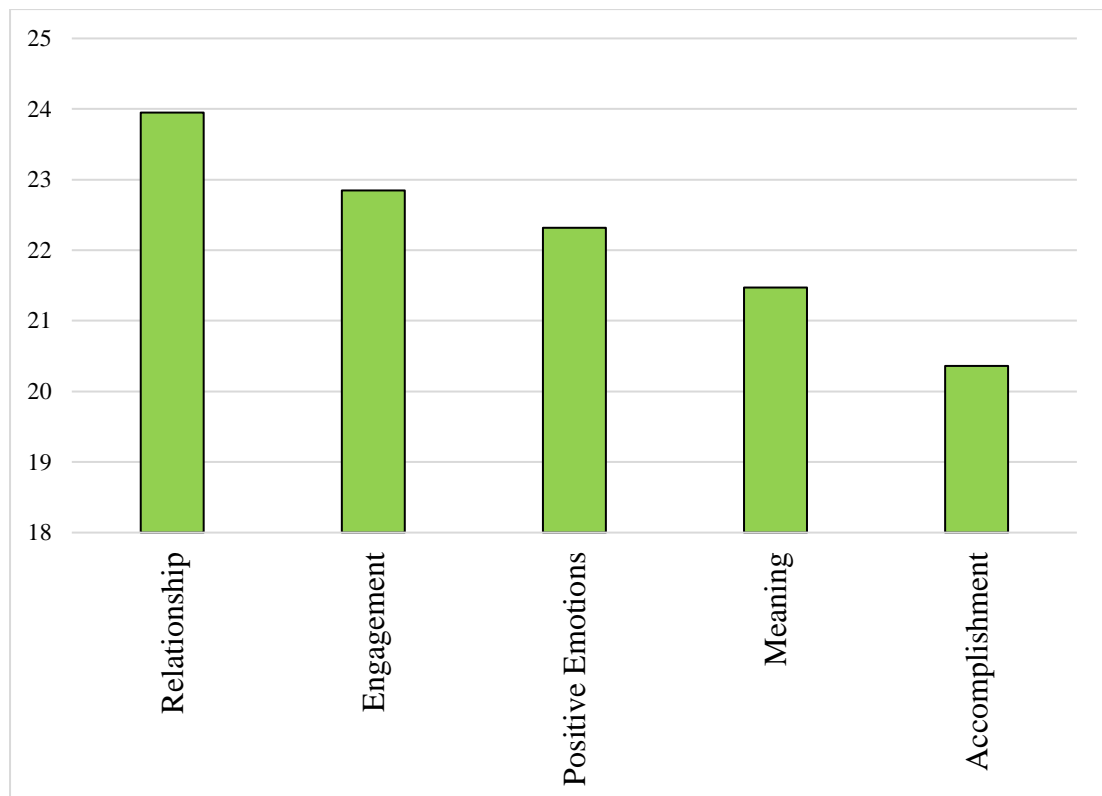
Figure 4.6 Bar chart showing mean order of PERMA elements of the control group on pre-test shows that the highest mean score for PERMA is for a relationship, then engagement following positive emotions and meaning. The lowest mean score is for accomplishment.

Table 4.3 Independent sample test showing t, df, and significance value of experimental group and control group on pre-test

Variables	Mean Difference	Std. Error Difference	t-test for Equality of Means		
			T	df	Sig. (2-tailed)
Character Strengths					
Appreciation of beauty and excellence	0.14	0.12	1.15	152	0.25
Bravery	-0.03	0.14	0.25	152	0.80
Love	-0.17	0.12	1.36	152	0.18
Prudence	-0.14	0.12	1.18	152	0.24
Teamwork	-0.09	0.13	0.73	152	0.47
Creativity	0.03	0.13	0.19	152	0.85
Curiosity	0.05	0.15	0.37	152	0.71
Fairness	-0.01	0.12	0.06	152	0.96
Forgiveness	0.03	0.13	0.24	152	0.81
Gratitude	-0.22	0.12	1.80	152	0.07
Honesty	-0.12	0.11	1.11	152	0.27
Hope	-0.11	0.12	0.85	152	0.40
Humor	0.06	0.16	0.36	152	0.72
Perseverance	-0.14	0.12	1.20	152	0.23
Judgment	-0.05	0.14	0.34	152	0.73
Kindness	0.10	0.13	0.82	152	0.41
Leadership	-0.18	0.14	1.33	152	0.19
Love of Learning	0.10	0.16	0.62	152	0.53
Humility	-0.15	0.14	1.06	152	0.29
Perspective	0.04	0.14	0.33	152	0.74
self-regulation	0.13	0.11	1.19	152	0.24
Social Intelligence	-0.02	0.12	0.18	152	0.86
Spirituality	-0.11	0.13	0.85	152	0.40
Zest	0.00	0.13	0.02	152	0.98
PERMA					
Positive Emotions	-1.34	0.87	1.53	152	0.13
Engagement	-1.15	0.79	1.45	152	0.15
Relationship	-1.41	0.76	1.86	152	0.06
Meaning	-0.87	0.85	1.02	152	0.31
Accomplishment	0.00	0.77	0.00	152	1.00

Table 4.3 shows that the mean difference, standard error difference, t value, and df of the experimental and control group on pre-test shows that the mean difference,

standard error difference, and t value for appreciation of beauty and excellence is 0.14, 0.12, and 1.15 respectively with sig of 0.25 at 0.05 level of significance. For bravery, the mean difference is -0.03; the standard error difference is 0.14, t value is 0.25 with a significance of 0.80. For love, mean difference, standard error difference, t value, and Sig value are -0.17, 0.12, 1.36, and 0.18, respectively. Prudence has a mean difference of -0.14; the standard error difference is 0.12, t value is -1.18 with a sig value of 0.24. The mean difference for teamwork is -0.09, standard error difference of 0.13, t value of 0.73 with Sig. of 0.47. For creativity, the mean difference is 0.03, standard error difference is 0.13, with a t of 0.19 and Sig of 0.85. Curiosity has a mean difference of 0.05, standard error difference is 0.15, and t value is 0.37 with Sig of 0.71. The mean difference score for fairness, forgiveness, gratitude, honesty, and hope is -0.01, 0.03, -0.22, -0.12, and -0.11. Standard error difference is 0.12, 0.13, 0.12, 0.11 and 0.12 with t value of 0.06, 0.24, 1.80, 1.11 and 0.85 with Sig. of 0.96, 0.81, 0.07, 0.27 and 0.40 respectively for fairness, forgiveness, gratitude, honesty and hope. For humor, perseverance, judgment, kindness, leadership and love of learning, the mean difference is 0.06, -0.14, -0.05, 0.10, -0.18 and 0.10 respectively with standard error difference of 0.16, 0.12, 0.14, 0.13, 0.14 and 0.62 respectively. The t values are 0.36, 1.20, 0.34, 0.82, -1.33 and 0.62 with Sig. of 0.72, 0.23, 0.73, 0.41, 0.19 and 0.53 respectively for humor, perseverance, judgment, kindness, leadership and love of learning. Strengths such as humility, perspective, self-regulation, social intelligence, spirituality and zest has a mean scores of -0.15, 0.04, 0.13, -0.02, -0.11 and 0.00 respectively with standard error differences of 0.14, 0.14, 0.11, 0.12, 0.13 and 0.13. The t value for humility, perspective, self-regulation, social intelligence, spirituality and zest are 1.06, 0.33, 1.19, 0.18, 0.85 and 0.02 with Sig. of 0.29, 0.74, 0.24, 0.86, 0.40 and 0.98 respectively.

The elements of wellbeing such as Positive emotion, engagement, relationship, meaning, and accomplishment have a mean difference of -1.34, -1.15, -1.41, -0.87, and 0.00 and a standard error difference of 0.87, 0.79, 0.76, 0.85, and 0.77 respectively. The t values are 1.53, 1.45, 1.86, 1.02 and 0.00 with Sig. of 0.13, 0.15, 0.06, 0.3 and 1.00 respectively for Positive emotion, engagement, relationship, meaning and accomplishment. The Sig. values of character strengths and PERMA show no significant difference in character strength and PERMA of the experimental group and control group during the pretest.

Table 4.4 Showing mean score, number of participants, and standard deviation of male and female corresponding to character strengths and PERMA elements

Variables	Male			Female		
	N	Mean	SD	N	Mean	SD
Character Strengths						
Appreciation of beauty and excellence	91	4.02	0.83	63	4.21	0.65
Bravery	91	3.52	0.87	63	3.35	0.78
Love	91	3.88	0.77	63	4.06	0.76
Prudence	91	3.26	0.78	63	3.04	0.67
Teamwork	91	3.56	0.74	63	3.60	0.85
Creativity	91	3.53	0.81	63	3.32	0.85
Curiosity	91	3.59	0.92	63	3.50	0.88
Fairness	91	3.55	0.74	63	3.66	0.75
Forgiveness	91	3.80	0.80	63	3.85	0.77
Gratitude	91	3.94	0.76	63	4.10	0.77
Honesty	91	3.05	0.67	63	3.07	0.68
Hope	91	3.84	0.82	63	3.91	0.70
Humor	91	3.80	0.99	63	3.82	0.94
Perseverance	91	3.10	0.72	63	3.02	0.77
Judgment	91	3.58	0.77	63	3.37	0.97
Kindness	91	3.77	0.75	63	3.87	0.84
Leadership	91	2.87	0.84	63	2.70	0.89
Love of Learning	91	3.54	1.02	63	3.57	0.95
Humility	91	3.17	0.82	63	3.06	0.94
Perspective	91	3.23	0.82	63	2.93	0.84
self-regulation	91	3.18	0.61	63	2.87	0.71
Social Intelligence	91	3.59	0.74	63	3.64	0.74
Spirituality	91	4.04	0.82	63	4.19	0.74
Zest	91	3.61	0.81	63	3.86	0.77
PERMA						
Positive Emotions	91	20.90	5.30	63	22.63	5.53
Engagement	91	21.73	4.86	63	23.00	4.94
Relationship	91	22.23	4.87	63	24.06	4.24
Meaning	91	20.67	5.89	63	21.49	4.29
Accomplishment	91	20.18	5.11	63	20.62	4.24

Table 4.4 showing the mean score, the number of participants, and standard deviation of males and females corresponding to character strengths and PERMA elements. The table shows 91 male participants and 63 female participants, with 154 participants in the study. The mean score and SD for appreciation of beauty and

excellence are 4.02 and 0.83 for males and 4.21 and 0.65 for females. The mean score for bravery, love, prudence, teamwork, and creativity is 3.52, 3.88, 3.26, 3.56, and 3.53, respectively, with SD of 0.87, 0.77, 0.78, 0.74, and 0.81 for males and a mean of 3.35, 4.06, 3.04, 3.60 and 3.32 and SD of 0.78, 0.76, 0.67 and 0.85 for both teamwork and creativity. For male s character strengths such as curiosity, fairness, forgiveness, gratitude, honesty, hope, humor, perseverance and judgment has mean scores of 3.59, 3.55, 3.80, 3.94, 3.05, 3.84, 3.80, 3.10 and 3.58 with SD of 0.92, 0.74, 0.80, 0.76, 0.67, 0.82, 0.99, 0.72 and 0.77 respectively for male participants and mean scores of 3.50, 3.66, 3.85, 4.10, 3.07, 3.91, 3.82, 3.02 and 3.37 with SD of 0.88, 0.75, 0.77, 0.77, 0.68, 0.70, 0.94, 0.77 and 0.97 respectively for female participants. For character strengths such as kindness, leadership, love of learning, humility, perspective, self regulation, social intelligence, spirituality and zest mean scores are 3.77, 2.87, 3.54, 3.17, 3.23, 3.18, 3.59, 4.04 and 3.61 respectively with SD of 0.75, 0.84, 1.02, 0.82, 0.82, 0.61, 0.74, 0.82 and 0.81 respectively for male participants. Female participants has a mean score of 3.87, 2.70, 3.57, 3.06, 2.93, 2.87, 3.64, 4.19 and 3.86 respectively for kindness, leadership, love of learning, humility, perspective, self regulation, social intelligence, spirituality and zest with SD of 0.84, 0.89, 0.95, 0.94, 0.84, 0.71, 0.74, 0.74 and 0.77 respectively.

Like previous studies, Score for kindness and love is higher for females, and it is evident that there are more similarities in strengths than differences based on gender. Hence we cannot overstate differences in character strength based on gender (Alex Linley et al., 2007). Females scored higher on strengths, including appreciation of beauty and excellence, kindness, gratitude, and love compared to male participants (Heintz et al., 2019). The higher scores in male and female character strengths may vary by societal roles (Biswas-Diener, 2006).

For PERMA elements such as positive emotions, male participants have a mean score of 20.90 with an SD of 5.30, and female participants have a mean score of 22.63 with an SD of 5.53. For engagement, male participants have a mean score of 21.73 with an SD of 4.86, and female participants have a mean score of 23 with an SD of 4.94. For relationship, the mean score for male participants is 22.23 with an SD of 4.87, and female participants have a mean score of 24.60 with an SD of 4.24. For meaning and accomplishment, mean scores are 20.67 and 20.18, respectively, with SD of 5.89 and

5.11 for males, and for females, mean scores are 21.49 and 20.62 with SD of 4.29 and 4.24 respectively for meaning and accomplishment. In this study, female participants obtained comparatively higher mean scores than male participants. In contrast, studies show that male adolescents scored higher than female adolescents on PERMA elements (Burke & Minton, 2019).

Figure 4.7 Bar chart showing mean order of character strength of male on pre-test
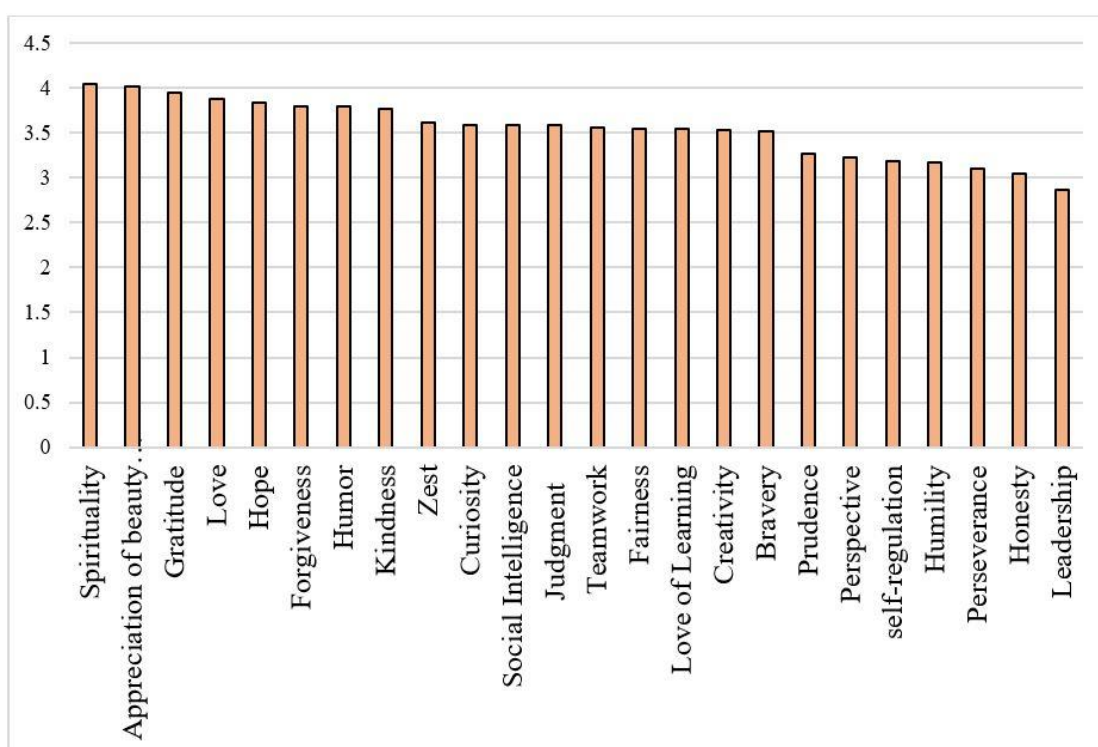
Figure 4.7 Bar chart showing mean order of character strength of male on pre-test shows that male participants have mean order of strengths such as spirituality, appreciation of beauty and excellence, gratitude, love, hope, forgiveness, humor, kindness, zest, curiosity, social intelligence, judgment, teamwork, fairness, love of learning, creativity, bravery, prudence, perspective, self-regulation, humility, perseverance, honesty, and leadership respectively from the highest mean score to lowest mean score. Character strength with the highest mean score is spirituality following appreciation of beauty and excellence, and the lowest mean score is for leadership.

Figure 4.8 Bar chart showing mean order of character strength of female on pre-test
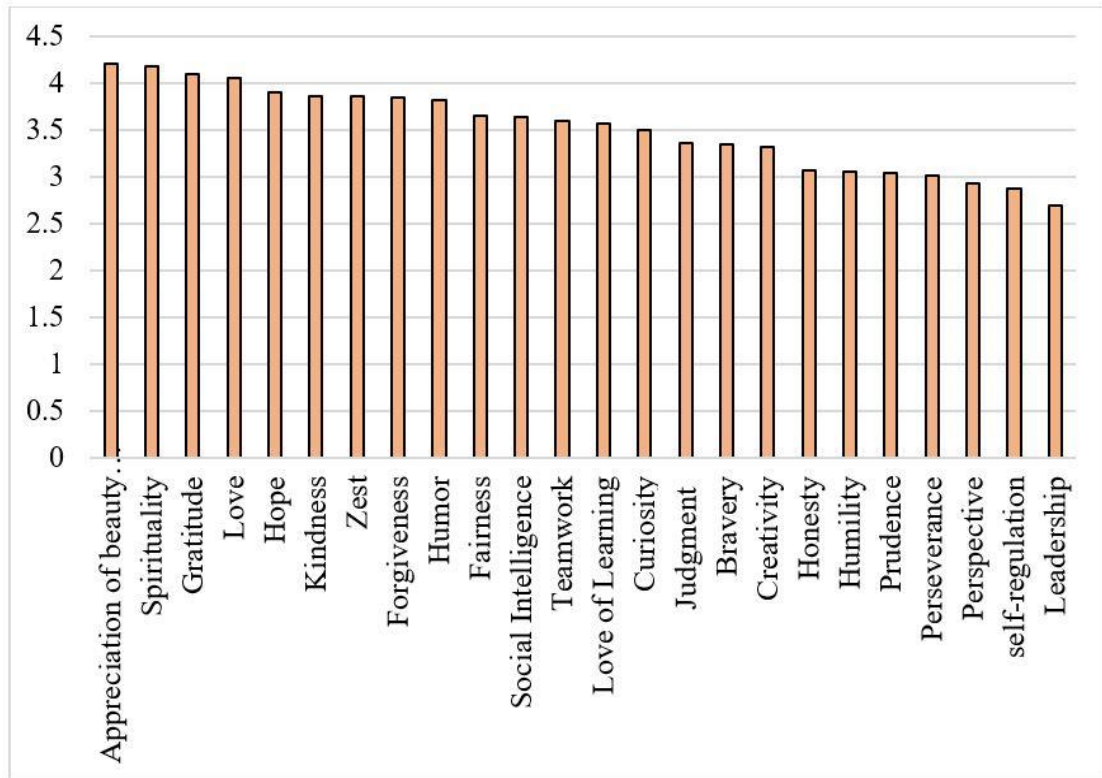
Figure 4.8 Bar chart showing mean order of character strength of female on pre-test shows that male participants have mean order of strengths such as appreciation of beauty and excellence, spirituality, gratitude, love, hope, kindness, zest, forgiveness, humor, fairness, social intelligence, teamwork, love of learning, curiosity, judgment, bravery, creativity, honesty, humility, prudence, perseverance, perspective, self-regulation, and leadership respectively in order of highest mean score to lowest mean score. Character strength with the highest mean score is for appreciation of beauty and excellence following spirituality, and the lowest mean score is for self-regulation and leadership.

Figure 4.9 Bar chart showing mean order of wellbeing of males on pre-test
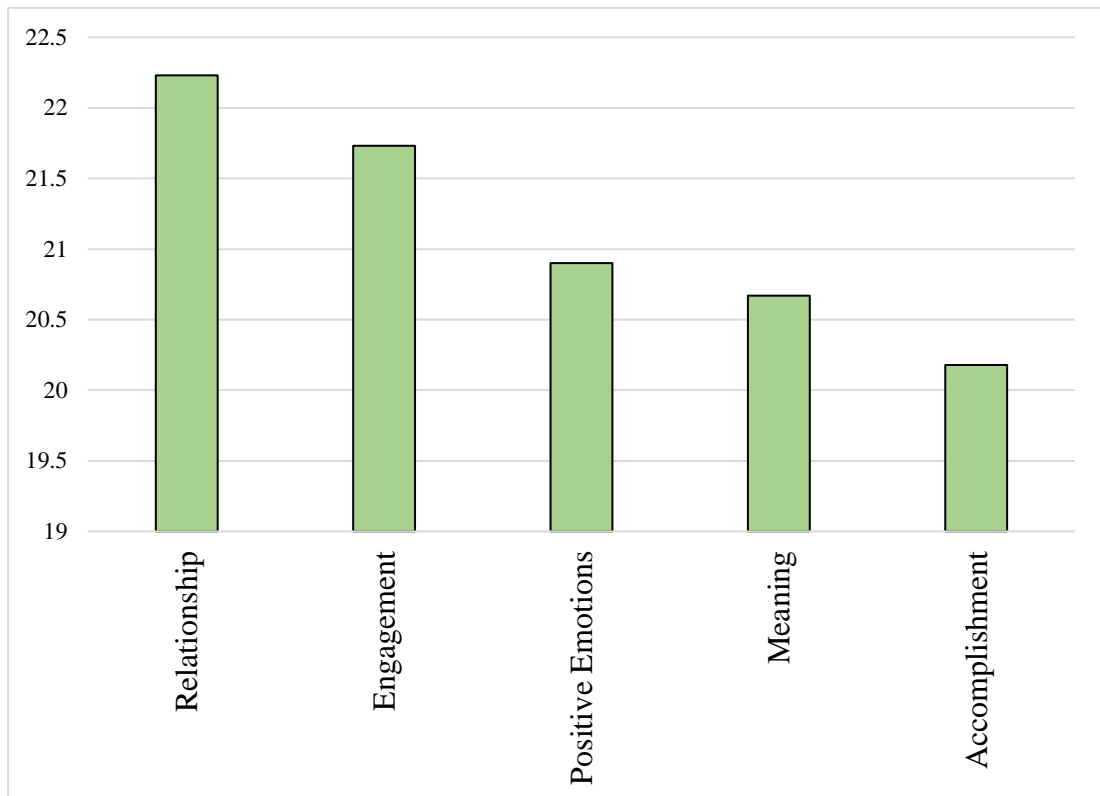
Figure 4.9 Bar chart showing mean order of well-being of males on pre-test shows that mean order of scores for wellbeing elements is relationship, engagement, positive emotions, meaning and accomplishment from highest to lowest mean scores. The comparatively highest mean score is for an element of the relationship, and the lowest mean score is for accomplishment.

Figure 4.10 Bar chart showing mean order of wellbeing of females on pre-test
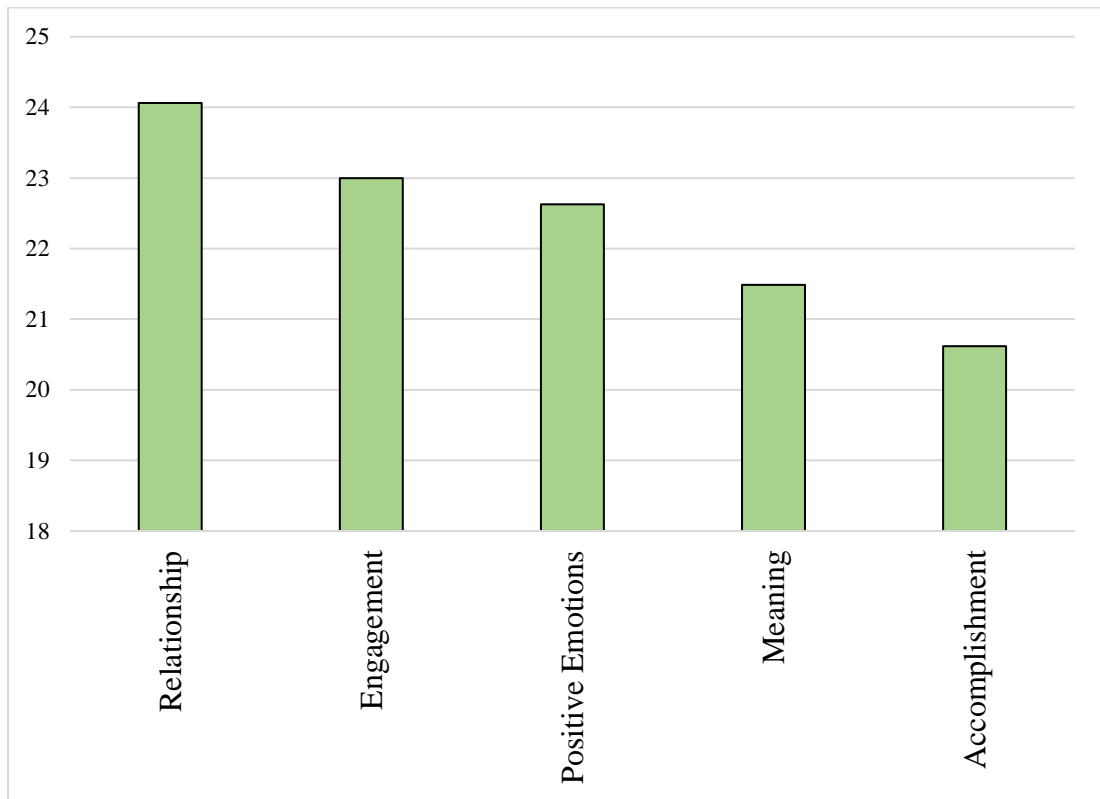
Figure 4.10 Bar chart showing mean order of wellbeing of females on pre-test shows that mean order of scores for well-being elements is relationship, engagement, positive emotions, meaning and accomplishment from highest to lowest mean scores. The element with a comparatively highest mean score is for the relationship element of wellbeing, and the lowest mean score is for accomplishment.

Table 4.5 ANOVA table showing the sum of squares, degrees of freedom, mean square, F value, and significance value of male and female

Variables	Sum of Squares	df	Mean Square	F	Sig.
Character Strength					
Appreciation of beauty and excellence	1.32	1	1.32	2.25	0.14
Bravery	1.20	1	1.20	1.71	0.19
Love	1.12	1	1.12	1.91	0.17
Prudence	1.67	1	1.67	3.06	0.08
Teamwork	0.05	1	0.05	0.08	0.78
Creativity	1.64	1	1.64	2.41	0.12
Curiosity	0.30	1	0.30	0.36	0.55
Fairness	0.42	1	0.42	0.77	0.38
Forgiveness	0.11	1	0.11	0.17	0.68
Gratitude	0.90	1	0.90	1.54	0.22
Honesty	0.01	1	0.01	0.01	0.91
Hope	0.20	1	0.20	0.34	0.56
Humor	0.01	1	0.01	0.01	0.91
Perseverance	0.29	1	0.29	0.53	0.47
Judgment	1.71	1	1.71	2.33	0.13
Kindness	0.35	1	0.35	0.57	0.45
Leadership	1.02	1	1.02	1.38	0.24
Love of Learning	0.04	1	0.04	0.04	0.85
Humility	0.42	1	0.42	0.56	0.46
Perspective	3.19	1	3.19	4.66	0.03
self-regulation	3.50	1	3.50	8.14	0.00
Social Intelligence	0.12	1	0.12	0.23	0.63
Spirituality	0.86	1	0.86	1.39	0.24
Zest	2.30	1	2.30	3.65	0.06
PERMA					
Positive Emotions	111.91	1	111.91	3.85	0.05
Engagement	60.49	1	60.49	2.53	0.11
Relationship	209.53	1	209.53	9.82	0.00
Meaning	25.14	1	25.14	0.90	0.35
Accomplishment	7.31	1	7.31	0.32	0.57

ANOVA table, 4.5 showing significant difference between male and female participants in character strength and wellbeing shows that for the strength of appreciation of beauty and excellence, participants have a sum of squares and mean square of 1.32 with f of 2.25 and sig of 0.14 with DF of 1. For bravery, the sum of squares and mean square is 1.20 with f of 1.71 and sig of 0.19. For love, the sum of

squares and mean square is 1.12 with an F ratio of 1.91 and sig of 0.17. Prudence has a mean square and sum of the square of 0.67 with an F value of 3.06 and a sig. of 0.08. For teamwork, 0.05 is the mean square and sum of square with an f value of 0.08 and sig. 0.78. Creativity has a mean square and sum of square scores of 1.64 with f value 2.41 and sig. of 0.21. The sum of squares and the mean square for curiosity is 0.30 with f of 0.36 and sig. of 0.55. For fairness, 0.42 is the mean square, the sum of the square, and f value 0.77 with a sig. of 0.38 between groups. For forgiveness, 0.11 is the sum of squares and mean square with df of 1, f value 0.17, and sig. of 0.68. The sum of squares and mean square for gratitude is 0.90, f value is 1.54, and sig of 0.22. Honesty has a sum of square and mean square of 0.01 with an f value of 0.01 and a sig. of 0.91. For the strength of hope, mean square, a sum of the square, f value, and sig are 0.20, 0.20, 0.34, and 0.56. The sum of squares and the mean square for humor are 0.01 with an f value of 0.01 and sig of 0.91. Perseverance has a sum of square scores and mean square scores of 0.29 with an f value of 0.53 and a sig. of 0.47. Judgment has a mean square and sum of square value of 1.71 with f of 2.33 and sig of 0.13. The mean square and sum of the square value for kindness are 0.35 with f of 0.57 and sig of 0.45. Leadership has a mean score and sum of the square of 1.02 with an f value of 1.38 and a sig. of 0.24. The love of learning groups has a mean square of 0.04, f of 0.04, and sig. of 0.85. Humility has a sum of square and mean square values of 0.42, f value of 0.56, and sig. of 0.46. For perspective, the sum of square and mean square values are 3.19, f value is 4.66, and sig of 0.03. Self-regulation has a sum of square and mean square of 3.50 with f of 8.14 and sig. of 0.00. Social intelligence has a sum of squares and a mean square of 0.12 with f of 0.03 and sig. of 0.86. For spirituality, the sum of squares and mean squares are 0.86 with f of 0.13 and sig. of 0.24. Zest has a sum of squares and mean square of 2.30, f of 3.65, and sig of 0.06.

Positive emotion has a mean square and sum of squares of 111.91 with f of 3.85 and sig of 0.05. The engagement has a mean square and sum of squares of 60.49, f of 2.53, and sig of 0.11. The mean square and sum of squares for the relationship is 209.53 with an f of 9.82 and sig. 0.00. Meaning has a sum of square and mean square of 25.14, f of 0.90, and sig. of 0.35. Similarly, accomplishment has a mean square and sum of square of 7.31 and f scores of 0.32 with sig. 0.57.

Previous studies show that gender affects character strengths, where girls scored higher on most of the character strengths than boys (Ruch et al., 2014). Similarly, from certain studies, we can understand that gender differences in character strengths vary based on the gender roles in a specific culture from the sig. Values were obtained between male and female participants, except for strengths such as perspective and self-regulation with sig of 0.03 and 0.00, no significant difference in character strengths between genders. In contrast to the finding that male participants have more positive emotion and engagement (K. Singh & Raina, 2020), female participants scored higher on both dimensions except for relationship and positive emotions. There is no significant difference between elements as engagement, meaning, and accomplishment. Similarly, in a study conducted in schools in Ireland, it is found that except for the dimension of the relationship, there is no significant difference in all other dimensions of well-being based on gender (Burke & Minton, 2019).

Table 4.6 Showing mean score, number of participants, and standard deviation of character strengths and PERMA elements of participants from the joint and nuclear family

Variables	Joint Family			Nuclear Family		
	N	Mean	SD	N	Mean	SD
Character Strengths						
Appreciation of beauty and excellence	78	4.05	0.83	76	4.15	0.71
Bravery	78	3.55	0.88	76	3.35	0.79
Love	78	3.83	0.79	76	4.08	0.73
Prudence	78	3.30	0.77	76	3.04	0.70
Teamwork	78	3.53	0.82	76	3.63	0.75
Creativity	78	3.52	0.79	76	3.36	0.87
Curiosity	78	3.58	0.94	76	3.51	0.86
Fairness	78	3.58	0.76	76	3.61	0.73
Forgiveness	78	3.79	0.80	76	3.85	0.77
Gratitude	78	3.99	0.75	76	4.01	0.79
Honesty	78	3.07	0.70	76	3.05	0.65
Hope	78	3.96	0.72	76	3.77	0.82
Humor	78	3.78	0.93	76	3.83	1.01
Perseverance	78	3.15	0.77	76	2.98	0.71
Judgment	78	3.63	0.89	76	3.35	0.82
Kindness	78	3.81	0.73	76	3.81	0.84
Leadership	78	2.82	0.83	76	2.78	0.90
Love of Learning	78	3.53	1.06	76	3.57	0.90
Humility	78	3.01	0.83	76	3.24	0.91
Perspective	78	3.14	0.85	76	3.07	0.83
self-regulation	78	3.06	0.68	76	3.04	0.67
Social Intelligence	78	3.61	0.77	76	3.61	0.70
Spirituality	78	4.05	0.70	76	4.15	0.87
Zest	78	3.66	0.86	76	3.77	0.73
PERMA						
Positive Emotions	78	21.06	5.78	76	22.17	5.04
Engagement	78	22.28	5.29	76	22.21	4.53
Relationship	78	22.36	5.32	76	23.46	4.64
Meaning	78	21.32	5.49	76	20.68	5.09
Accomplishment	78	22.76	4.98	76	23.66	4.49

Table 4.6 Showing mean score, number of participants and standard deviation of character strengths and PERMA elements of participants from joint and nuclear

family shows that appreciation of beauty and excellence, bravery, love, prudence, teamwork, creativity, curiosity, fairness, forgiveness, gratitude and honesty has a mean scores of 4.05, 3.55, 3.83, 3.30, 3.53, 3.52, 3.58, 3.58, 3.78, 3.99 and 3.07 with SD of 0.83, 0.88, 0.79, 0.77, 0.82, 0.79, 0.94, 0.76, 0.80, 0.75 and 0.70 respectevely for joint family. For participants from nuclear family, they have a mean scores of 4.15, 3.35, 4.08, 3.04, 3.63, 3.36, 3.51, 3.61, 3.85, 4.01 and 3.05 with SD of 0.71, 0.79, 0.73, 0.70, 0.75, 0.87, 0.86, 0.73, 0.77, 0.79 and 0.65 respectevely for appreciation of beauty and excellence, bravery, love, prudence, teamwork, creativity, curiosity, fairness, forgiveness, gratitude and honesty. For strengths such as hope, humor, perseverance, judgment, kindness, leadership, love of learning, humility, perspective, self regulation, social intelligence and zest participants from joint family participants has a mean scores of 3.96, 3.78, 3.15, 3.63, 3.81, 2.82, 3.53, 3.01, 3.14, 3.11, 3.06, 4.05 and 3.66 respectevely with SD of 0.72, 0.93, 0.77, 0.89, 0.73, 0.83, 1.06, 0.83, 0.85, 0.71, 0.68, 0.70 and 0.86. Participants from nuclear family as mean score of 0.3.77, 3.83, 2.98, 3.35, 3.81, 2.78, 3.57, 3.24, 3.07, 3.10, 3.04, 4.15 and 3.77 with SD of 0.82, 1.01, 0.71, 0.82, 0.84, 0.90, 0.90, 0.91, 0.83, 0.70, 0.67, 0.87 and 0.73 respectevely for hope, humor, perseverance, judgment, kindness, leadership, love of learning, humility, perspective, self regulation, social intelligence and zest.

The mean score for Positive emotion of participants from joint families is 21.06 with an SD of 5.78, and the mean score for engagement is 22.28 with an SD of 5.29. For relationship, meaning and accomplishment, they have mean scores of 22.76, 21.32, and 20.82 with SD of 4.98, 5.49, and 4.98. Participants from the nuclear family have a mean score of 22.17 with an SD of 5.04 for positive emotions. For engagement, relationship, meaning, and accomplishment, they have mean scores of 22.21, 23.66, 20.68, and 19.88 with SD of 4.53, 4.49, 5.09, and 4.52, respectively for nuclear families.

Figure 4.11 Bar chart showing mean order of character strength of participants belong to the joint family on pre-test
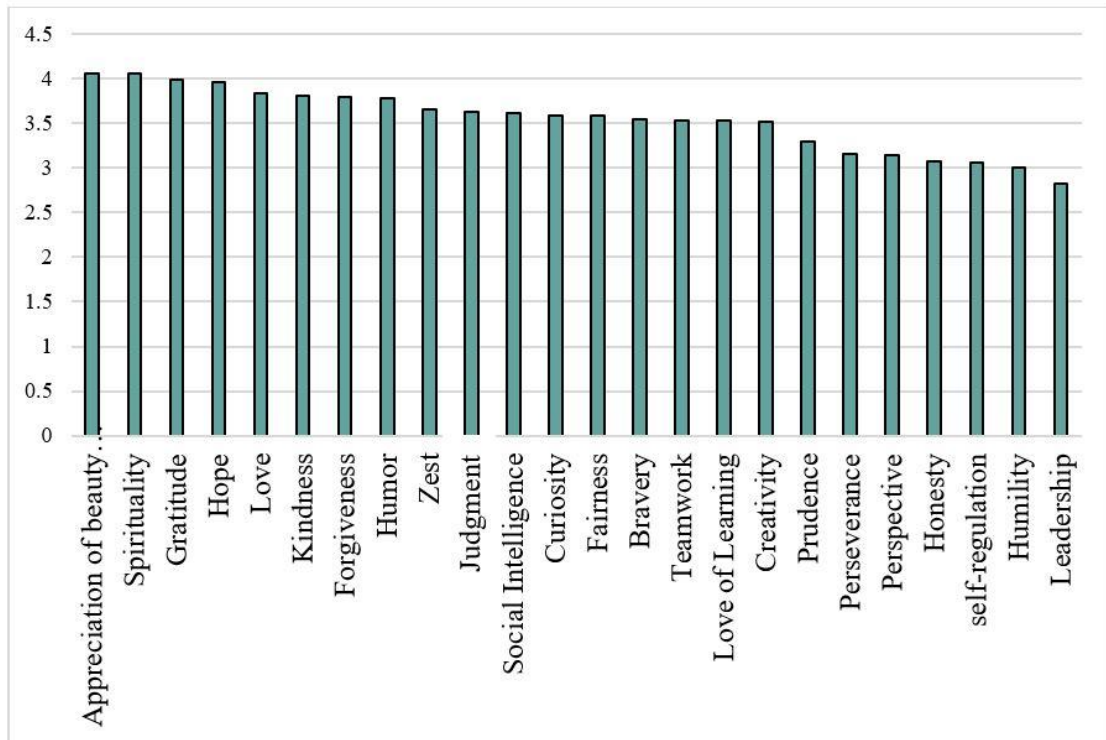
Figure 4.11 Bar chart showing mean order of character strength of participants belong to a joint family on pre-test shows that they have a higher mean score on strengths such as spirituality, appreciation of beauty and excellence, gratitude, hope, and love as well as lowest mean scores are for perspective, self-regulation, honesty, humility, and leadership. Other strengths such as kindness, forgiveness, humor, zest, judgment, social intelligence, fairness, curiosity, bravery, love of learning, teamwork, creativity, prudence, and perseverance lie between the highest and lowest mean scores, were kindness has higher mean scores than forgiveness, forgiveness has higher mean scores than humor and other strengths. The highest mean score is for spirituality and appreciation of beauty and excellence, and the lowest is for leadership.

Figure 4.12 Bar chart showing mean order of character strength of participants belong to the nuclear family on pre-test
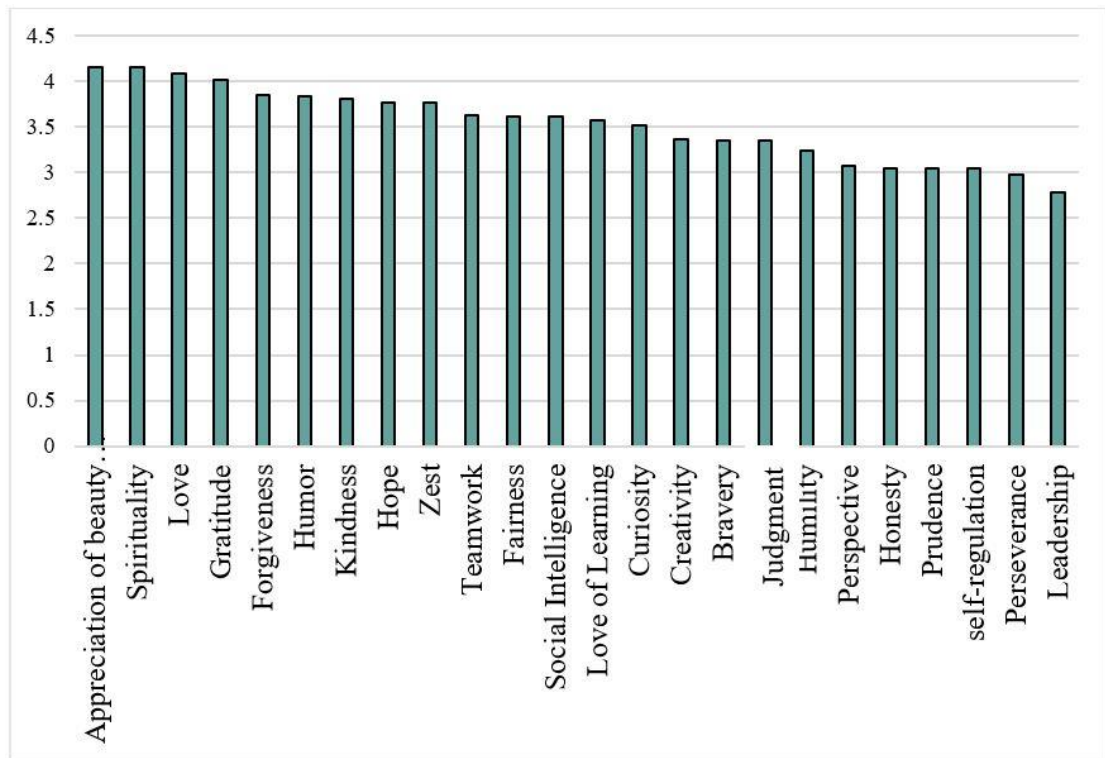
Figure 4.12 Bar chart showing mean order of character strength of participants belongs to the nuclear family on the pre-test. It shows that they have a higher mean score on strengths such as spirituality, appreciation of beauty and excellence, love, gratitude, and forgiveness. The lowest mean scores are for honesty, perspective, prudence, perseverance, and leadership. Other strengths such as humor, kindness, hope, zest, teamwork, social intelligence, fairness, love of learning, curiosity, creativity, judgment, bravery, humility, and self-regulation lie between the highest and lowest mean scores, where humor has higher mean scores than kindness, kindness has higher mean scores than hope and other strengths. The highest mean score is for spirituality and appreciation of beauty and excellence, and the lowest is for leadership.

Figure 4.13 bar chart showing Mean order of wellbeing participants belongs to the joint family on pre-test
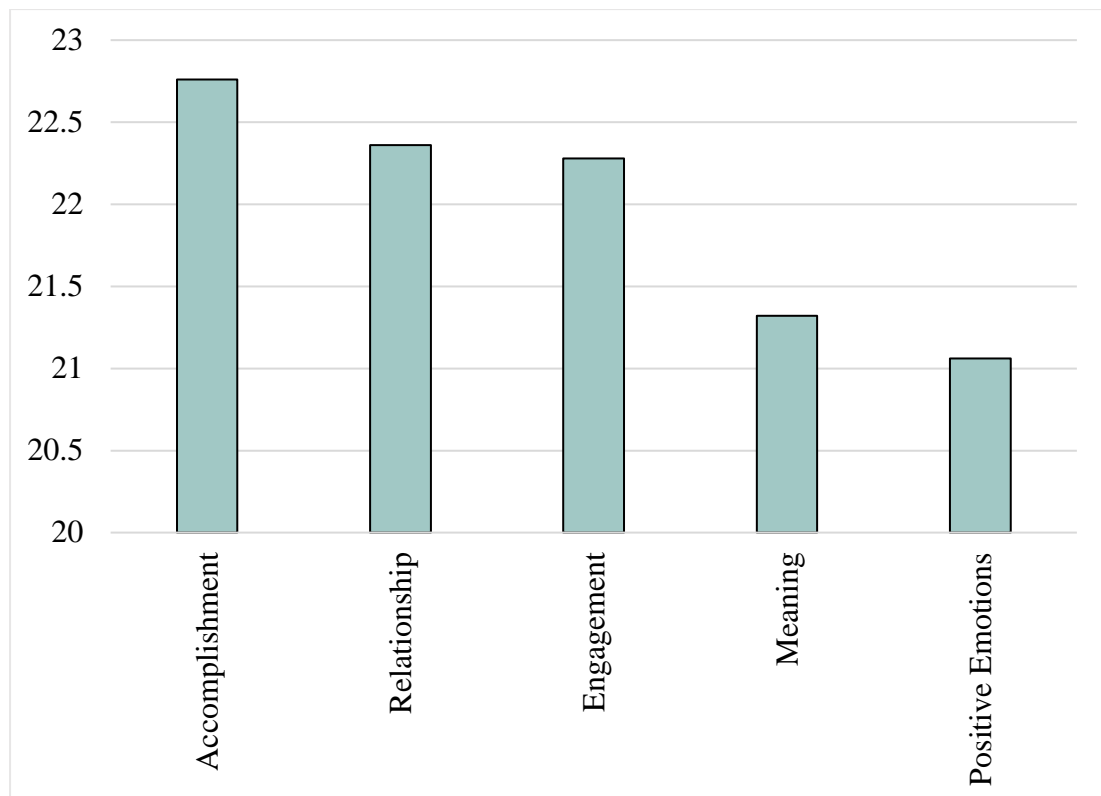
Figure 4.13 bar chart showing Mean order of wellbeing participants belongs to the joint family on pre-test shows that participants from joint family have a highest mean score on PERMA element of accomplishment. The lowest mean score is for positive emotions. Other elements such as relationship, engagement, and meaning lie between accomplishment and positive emotions to highest mean scores to lowest mean scores.

Figure 4.14 Bar chart showing Mean order of wellbeing participants belongs to a nuclear family on pre-test
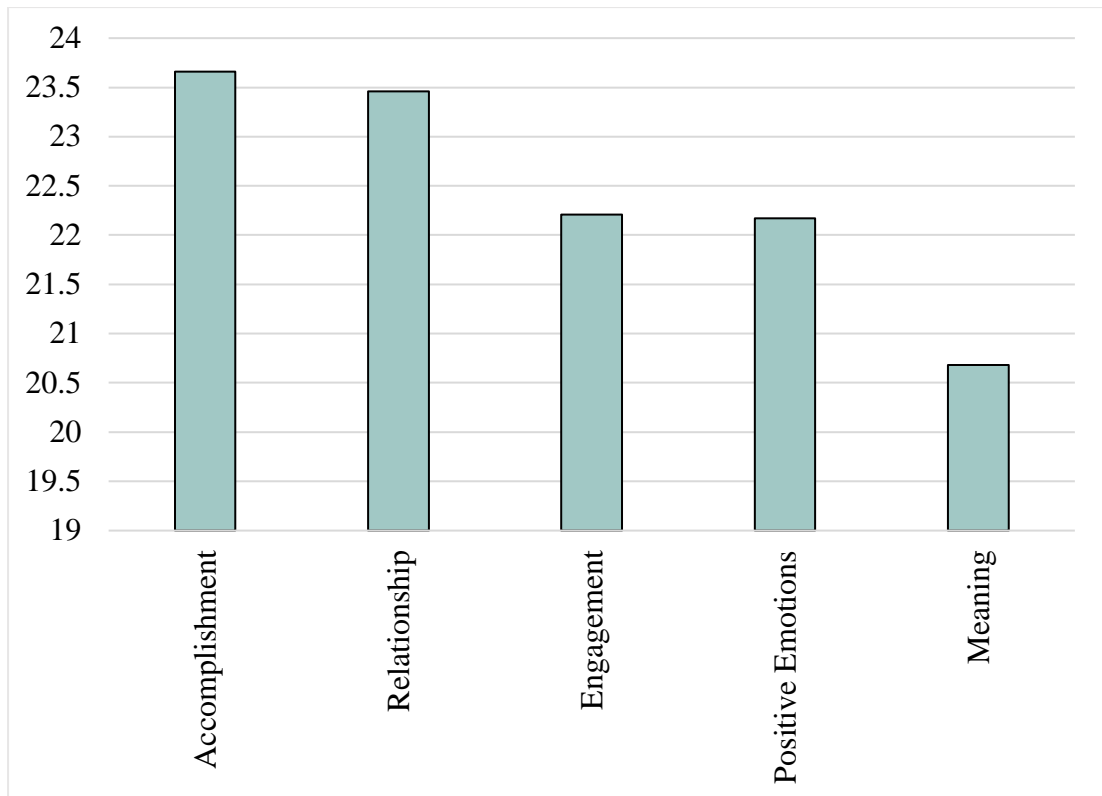
Figure 4.14 bar chart showing Mean order of wellbeing participants belongs to the nuclear family on pre-test shows that participants from nuclear family have the highest mean score on PERMA element of accomplishment and the lowest mean score is for meaning. Other elements such as relationship, engagement, and positive emotions lie between relationship and accomplishment to highest mean scores to lowest mean scores.

Table 4.7 ANOVA table showing the sum of squares, degrees of freedom, mean square, F value, and significance value of participants between joint family and nuclear family

	Sum of Squares	df	Mean Square	F	Sig.
Character Strengths					
Appreciation of beauty and excellence	0.36	1	0.36	0.61	0.44
Bravery	1.58	1	1.58	2.26	0.14
Love	2.38	1	2.38	4.12	0.04
Prudence	2.64	1	2.64	4.89	0.03
Teamwork	0.43	1	0.43	0.70	0.40
Creativity	0.95	1	0.95	1.39	0.24
Curiosity	0.19	1	0.19	0.23	0.63
Fairness	0.02	1	0.02	0.04	0.83
Forgiveness	0.13	1	0.13	0.22	0.64
Gratitude	0.02	1	0.02	0.03	0.88
Honesty	0.02	1	0.02	0.04	0.85
Hope	1.37	1	1.37	2.31	0.13
Humor	0.10	1	0.10	0.10	0.75
Perseverance	1.16	1	1.16	2.11	0.15
Judgment	2.94	1	2.94	4.03	0.05
Kindness	0.00	1	0.00	0.00	0.99
Leadership	0.09	1	0.09	0.12	0.74
Love of Learning	0.04	1	0.04	0.05	0.83
Humility	2.05	1	2.05	2.72	0.10
Perspective	0.24	1	0.24	0.34	0.56
self-regulation	0.01	1	0.01	0.02	0.89
Social Intelligence	0.00	1	0.00	0.00	1.00
Spirituality	0.39	1	0.39	0.62	0.43
Zest	0.41	1	0.41	0.64	0.43
PERMA					
Positive Emotions	47.17	1	47.17	1.60	0.21
Engagement	0.20	1	0.20	0.01	0.93
Relationship	31.28	1	31.28	1.29	0.24
Meaning	15.59	1	15.59	0.56	0.46
Accomplishment	33.94	1	33.94	1.50	0.22

ANOVA Table 4.7 shows the significant difference between joint family and nuclear family participants in their character strength and well-being. It shows that for

the strength of appreciation of beauty and excellence, participants have a sum of squares and mean square of 0.36with f of 0.61 and sig of 0.44 with df of 1.

For bravery, the sum of squares and mean square is 1.58 with f of 2.26 and sig of 0.14. For love, the sum of squares and mean square is 2.38 with an F ratio of 4.12 and sig of 0.04. Prudence has a mean square and sum of square of 2.64 with an F value of 4.89 and sig. of 0.03. For teamwork, 0.43 is the mean square and sum of square with an f value of 0.70 and sig. 0.40. Creativity has a mean square and sum of square scores of 0.95 with f value 1.39 and sig. of 0.24. Sum of squares and mean square for curiosity is 0.19 with f of 0.23 and sig. of 0.63. For fairness, 0.02 is the mean square, the sum of square, and f value 0.64 with sig. of 0.83 between groups. For forgiveness, 0.13 is the sum of squares and mean square with df of 1, f value 0.22, and sig. of 0.64. The Sum of squares and mean square for gratitude is 0.02, f value is 0.03, and sig of 0.88. Honesty has a sum of square and mean square of 0.02 with an f value of 0.04 and sig. of 0.85. For the strength of hope, mean square, the sum of square, f value, and sig are respectively 1.37, 1.37, 2.31, and 0.13. Sum of squares and mean square and f value for humor is 0.10 with and sig of 0.75. Perseverance has a sum of square score and mean square scores of 1.16 with an f value of 2.11 and a sig. of 0.15. Judgment has a mean square and sum of square value of 2.94 with f of 4.03 and sig of 0.05. Mean square, the sum of square, and f value for kindness is 0.00 with sig. of 0.99. Leadership has a mean score and sum of square of 0.09 with an f value of 0.12 and sig. of 0.74. The love of learning groups has a mean square of 0.04, f of 0.05, and sig. of 0.83. Humility has a sum of square and mean square value of 2.05, f value of 2.72, and sig. of 0.10. For perspective, the sum of square and mean square values are 0.24, f value is 0.34, and sig of 0.56. Self-regulation has a sum of square, mean square of 0.01 and f of 0.02, and sig. of 0.89. Social intelligence has a sum of squares, mean square and f of 0.00 and sig. of 1. For spirituality, the sum of squares and mean squares are 0.39 with f of 0.62 and sig. of 0.43. Zest has a sum of squares and means square of 0.41, f of 0.64, and sig of 0.43.

Positive emotion has a mean square and sum of squares of 47.17 with f of 1.60 and sig of 0.21. The engagement has a mean square and sum of squares of 0.20, f of 0.01, and sig of 0.93. The mean square and sum of squares for the relationship is 31.28 with f of 1.39 and sig. 0.24. Meaning has a sum of square and mean square of 15.59, f

of 0.56, and sig. of 0.46. Similarly, accomplishment has a mean square and sum of square of 33.94 and f scores of 1.50 with sig. 0.22.

From the sig. Values obtained between joint family and nuclear family participants show that except for strengths such as love, prudence, and judgment with sig of 0.04, 0.03, and 0.05, there is no significant difference between character strengths.

Previous studies conducted on adolescents' wellbeing based on the type of family they belong to show that type of family does not have any significant effect on the wellbeing of adolescents (B. Singh & Udainiya, 2009). Similarly, another study also emphasizes that type and nature of family do not have any role in determining psychological wellbeing (Pawar & Adsul, 2015). Similar to previous findings, there is no significant difference in wellbeing between participants belonging to joint family and nuclear families in this study.

Table 4.8 showing the mean, number of participants, and standard deviation of character strength and wellbeing of Hindu, Christian, and Muslim participants

	Hindu			Christian			Muslim		
Variables	N	Mean	SD	N	Mean	SD	N	Mean	SD
Character Strength									
Appreciation of beauty and excellence	53	4.14	0.72	85	4.07	0.84	16	4.13	0.56
Bravery	53	3.62	0.87	85	3.37	0.84	16	3.31	0.67
Love	53	3.95	0.80	85	3.92	0.78	16	4.11	0.59
Prudence	53	3.26	0.75	85	3.17	0.71	16	2.84	0.85
Teamwork	53	3.52	0.75	85	3.64	0.79	16	3.44	0.87
Creativity	53	3.58	0.76	85	3.40	0.81	16	3.20	1.08
Curiosity	53	3.74	0.88	85	3.54	0.88	16	3.00	0.95
Fairness	53	3.65	0.81	85	3.57	0.74	16	3.56	0.53
Forgiveness	53	3.81	0.82	85	3.86	0.80	16	3.63	0.56
Gratitude	53	4.02	0.77	85	4.01	0.79	16	3.91	0.66
Honesty	53	3.20	0.68	85	2.97	0.67	16	3.06	0.66
Hope	53	3.97	0.76	85	3.82	0.79	16	3.73	0.72
Humor	53	4.00	0.88	85	3.69	0.97	16	3.81	1.14
Perseverance	53	3.14	0.74	85	3.02	0.73	16	3.09	0.83
Judgment	53	3.74	0.75	85	3.36	0.92	16	3.39	0.77
Kindness	53	3.92	0.77	85	3.81	0.73	16	3.50	1.07
Leadership	53	2.91	0.86	85	2.78	0.88	16	2.55	0.76
Love of Learning	53	3.81	0.98	85	3.41	0.97	16	3.39	1.00
Humility	53	3.07	0.84	85	3.19	0.89	16	2.95	0.94
Perspective	53	3.19	0.76	85	3.09	0.82	16	2.92	1.18
self-regulation	53	3.11	0.68	85	2.99	0.61	16	3.19	0.91
Social Intelligence	53	3.57	0.75	85	3.66	0.71	16	3.48	0.82
Spirituality	53	3.92	0.84	85	4.21	0.76	16	4.09	0.69
Zest	53	3.80	0.76	85	3.70	0.80	16	3.50	0.90
PERMA									
Positive Emotions	53	21.11	5.73	85	21.98	5.25	16	21.31	5.68
Engagement	53	21.58	5.25	85	23.11	4.62	16	19.88	4.41
Relationship	53	23.25	5.05	85	23.48	4.39	16	21.56	5.51
Meaning	53	21.43	4.98	85	21.18	4.92	16	18.69	7.58
Accomplishment	53	21.08	5.17	85	20.49	4.31	16	17.25	4.74

Table 4.8 showing the mean, number of participants, and standard deviation of character strength and wellbeing of Hindu, Christian, and Muslim participants. It shows that there are 53 participants from Hinduism they are having mean scores of 4.14, 3.62, 3.95, 3.26, 3.52, 3.58, 3.74, 3.65, 3.81, 4.02 , 3.20, 3.97, 4, 3.14, 3.74, 3.92, 2.92, 3.81, 3.07, 3.19, 3.11, 3.57, 3.92 and 3.80 with SD of 0.87, 0.80, 0.75, 0.75, 0.76, 0.88, 0.81, 0.82, 0.77, 0.68, 0.68, 0.88, 0.80, 0.74, 0.77, 0.86, 0.98, 0.84, 0.76, 0.68, 0.75, 0.84 and 0.76 respectively for appreciation of beauty and excellence, bravery, love, prudence, teamwork, creativity, curiosity, fairness, forgiveness, gratitude, honesty, hope, humor, perseverance, judgment, kindness, leadership, love of learning, humility, perspective, self-regulation, social intelligence, spirituality and zest. Mean scores for PERMA include 21.11 for positive emotion with an SD of 5.73, for engagement, 21.58 with SD of 5.25, for relationship 23.25 with an SD of 5.05. Meaning and accomplishment have mean scores of 21.43 and 21.08 with SD of 4.98 and 5.17, respectively.

Similarly, It shows that there are 85 participants from Christianity and they are having mean scores of 4.07, 3.37, 3.92, 3.17, 3.64, 3.40, 3.54, 3.57, 3.86, 4.01, 2.97, 3.82, 3.69, 3.02, 3.36, 3.81, 2.78, 3.41, 3.19, 3.09, 2.99, 3.66, 4.21 and 3.70 with SD of 0.84, 0.84, 0.78, 0.71, 0.79, 0.81, 0.88, 0.74, 0.80, 0.79, 0.67, 0.79, 0.97, 0.73, 0.92, 0.73, 0.88, 0.97, 0.89, 0.82, 0.61, 0.71, 0.76 and 0.80 respectively for appreciation of beauty and excellence, bravery, love, prudence, teamwork, creativity, curiosity, fairness, forgiveness, gratitude, honesty, hope, humor, perseverance, judgment, kindness, leadership, love of learning, humility, perspective, self-regulation, social intelligence, spirituality and zest. Mean scores for PERMA includes 21.98 for positive emotion with SD of 5.25, for engagement 23.11 with SD of 4.62, for relationship 23.48 with SD of 4.39. Meaning and accomplishment has mean scores of 21.18 and 20.49 with SD of 4.92 and 4.31 respectively.

There are 16 participants from Muslim community and they have a mean scores of 4.13, 3.31, 4.11, 2.84, 3.44, 3.20, 3, 3.56, 3.63, 3.91, 3.06, 3.73, 3.81, 3.09, 3.39, 3.50, 2.55, 3.39, 2.95, 2.92, 3.19, 3.48, 4.09 and 3.50 with SD of 0.56, 0.67, 0.59, 0.85, 0.87, 1.08, 0.95, 0.53, 0.56, 0.66, 0.66, 0.72, 1.14, 0.83, 0.77, 1.07, 0.76, 1, 0.94, 1.18, 0.91, 0.82, 0.69 and 0.90 respectively for appreciation of beauty and excellence, bravery, love, prudence, teamwork, creativity, curiosity, fairness, forgiveness, gratitude, honesty, hope, humor, perseverance, judgment, kindness, leadership, love of

learning, humility, perspective, self-regulation, social intelligence, spirituality and zest. Mean scores for PERMA includes 21.31 for positive emotion with SD of 5.62, for engagement 19.88 with SD of 4.41, for relationship 21.56 with SD of 5.51. Meaning and accomplishment has mean scores of 18.69 and 17.25 with SD of 7.58 and 4.74 respectively.

Figure 4.15 Bar chart showing Mean order of character strength of participants belong to Hindu religion
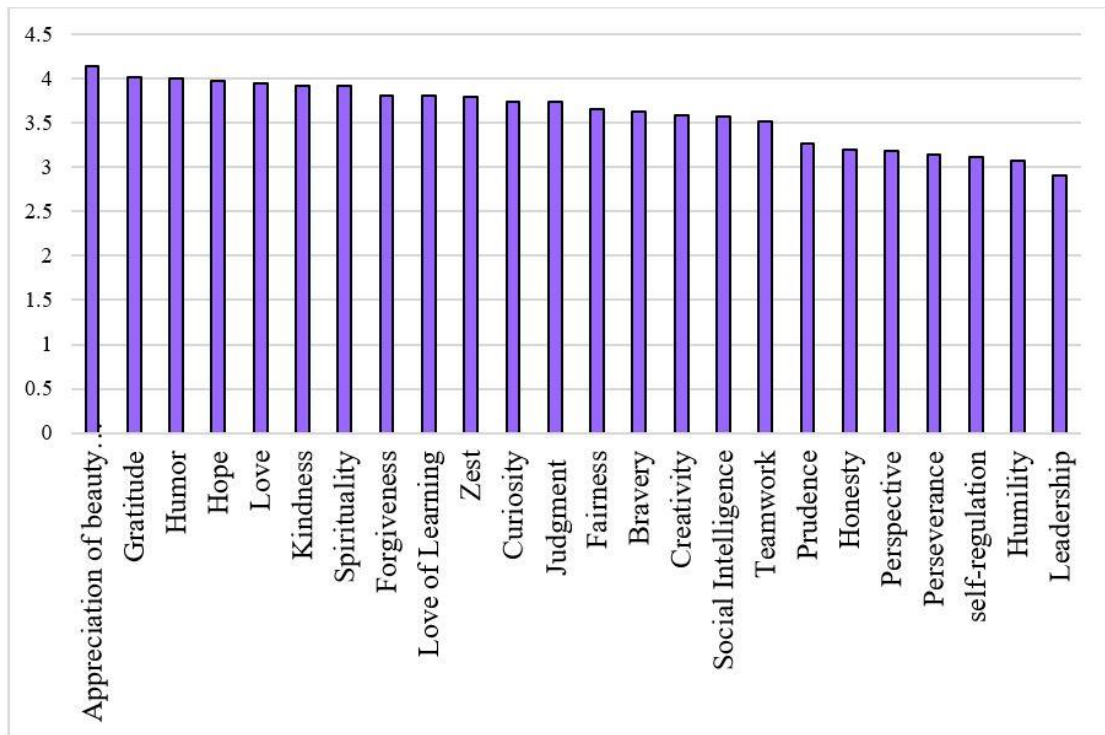
Figure 4.15 Bar chart showing the mean order of character strength of participants belongs to Hindu religion. The mean higher score for participants belongs to the Hindu community is the appreciation of beauty, gratitude, humor, hope, and love. Then the mean strengths such as kindness, spirituality, forgiveness, love of learning, zest, curiosity, judgment, fairness, bravery, creativity, social intelligence, teamwork, prudence, and honesty lie in the order of comparatively high mean score to low mean score. The lowest mean score is for strengths such as perspectives, perseverance, self-regulation, humility, and leadership, where leadership is the strength in which the group has lesser mean scores.

Figure 4.16 Bar chart showing Mean order of character strength of participants belong to the Christian religion
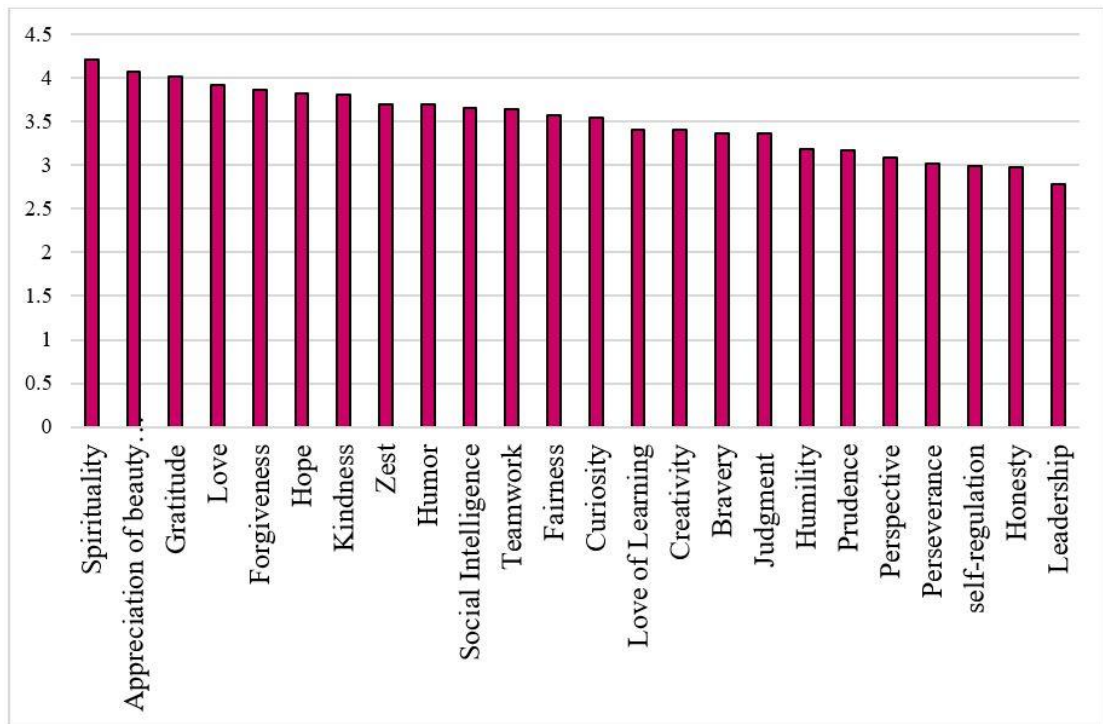
Figure 4.16 Bar chart showing Mean order of character strength of participants belong to Christian religion shows that the mean higher score for participants belongs to the Christian community is spirituality, appreciation of beauty and excellence, gratitude, love, and forgiveness. Then the mean strengths such as hope, kindness, zest, humor, social intelligence, teamwork, fairness, curiosity, love of learning, creativity, bravery, judgment, humility, and prudence, which lies in the order of comparatively high mean score to low mean score. The lowest mean score is for strengths such as perspectives, perseverance, self-regulation, honesty, and leadership, where leadership is the strength with lesser mean scores.

Figure 4.17 Bar chart showing Mean order of character strength of participants belong to the Muslim religion
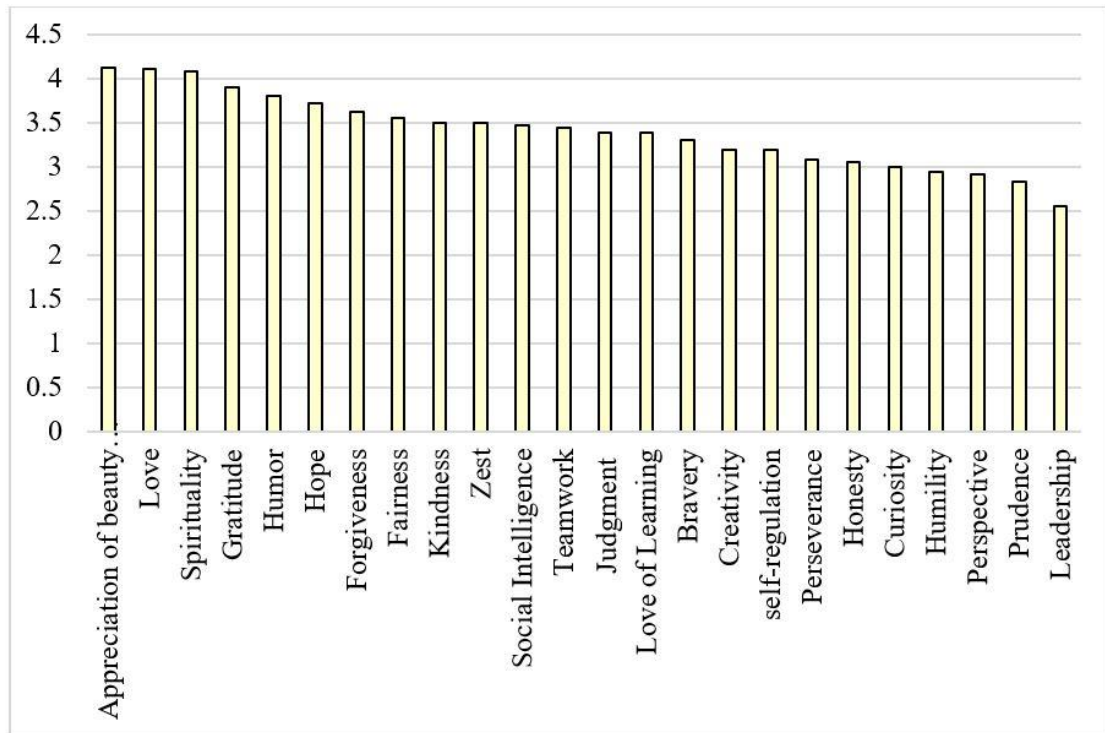
Figure 4.17 Bar chart showing Mean order of character strength of participants belong to Muslim religion shows that the mean higher score for participants belongs to the Muslim community is the appreciation of beauty and excellence, love, spirituality, gratitude, and humor. Then the mean strengths such as hope, forgiveness, fairness, kindness, zest, social intelligence, teamwork, judgment, love of learning, bravery, creativity, self-regulation, perseverance, and honesty lie in comparatively high mean score to low mean score. The lowest mean score is for strengths such as curiosity, humility, perspectives, prudence, and leadership, where leadership is the strength with lesser mean scores.

Figure 4.18 Bar chart showing Mean wellbeing of participants belong to Hindu religion on pre-test
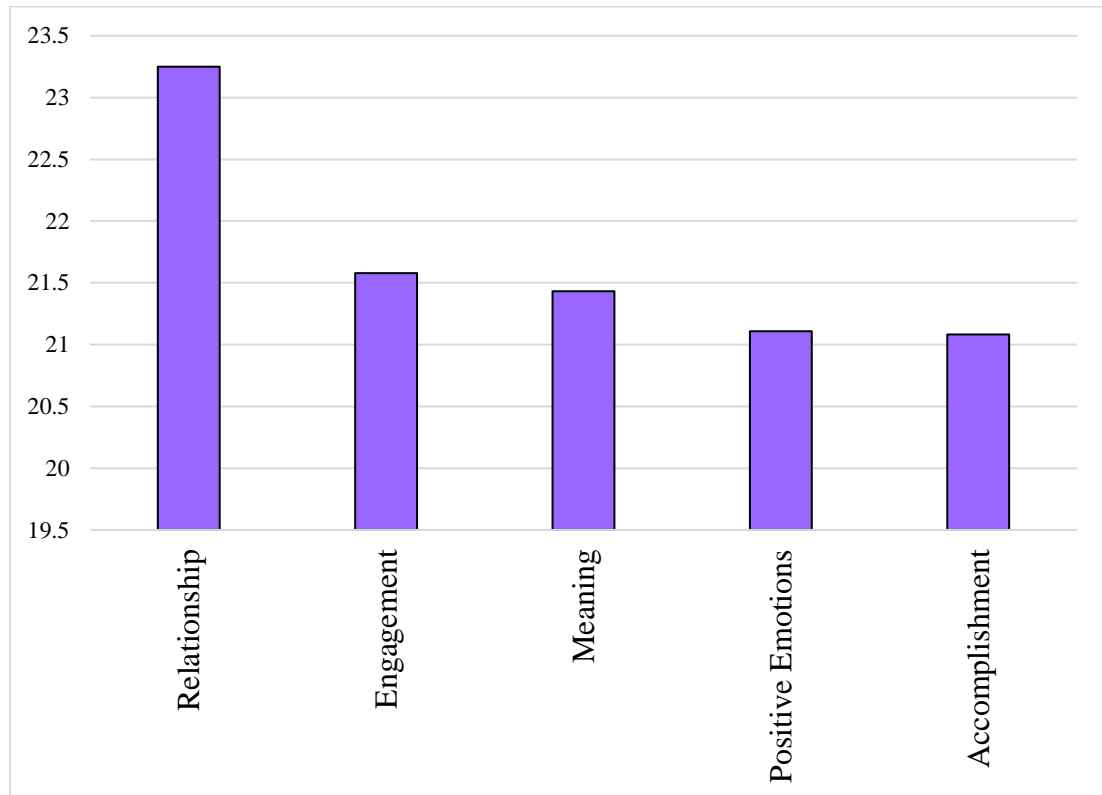
Figure 4.18 Bar chart showing the mean wellbeing of participants belongs to the Hindu religion on the pre-test. The group has higher mean scores on relationship, followed by engagement, meaning, and positive emotions, and the lesser mean scores are for accomplishment.

Figure 4.19 Bar chart showing Mean wellbeing of participants belong to Christian religion on pre-test
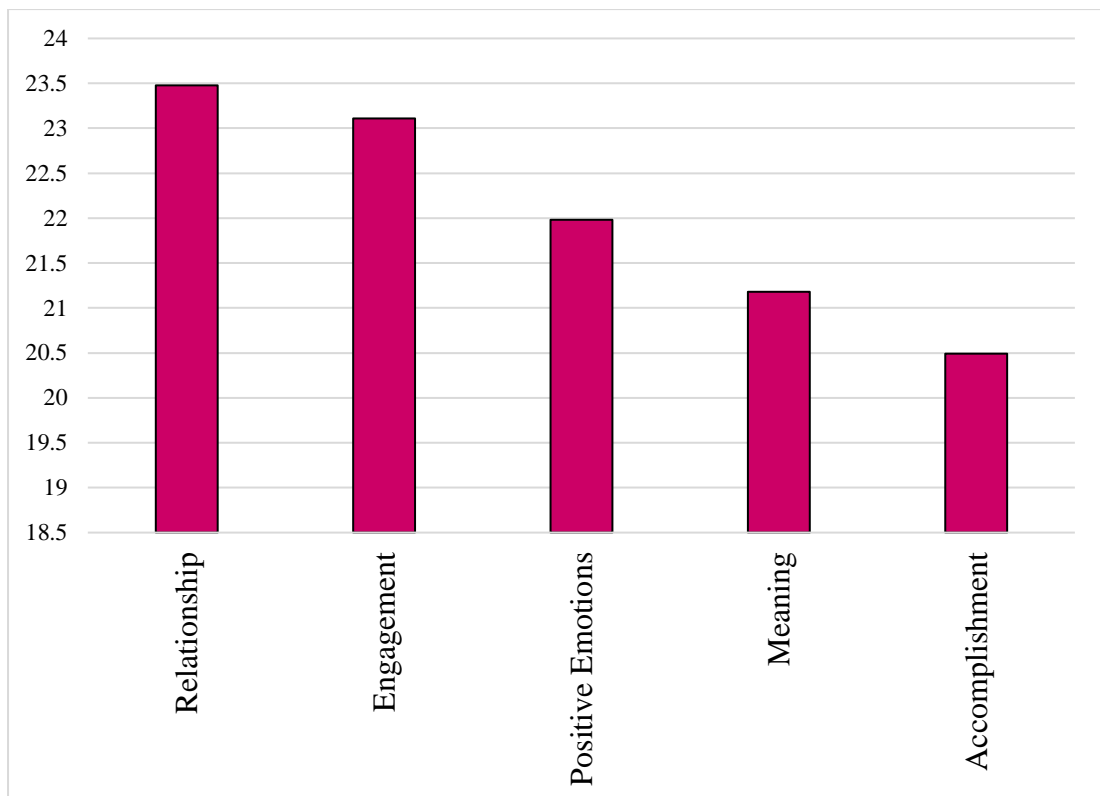
Figure 4.19 Bar chart showing Mean wellbeing of participants belong to Christian religion on pre-test shows that the group has higher mean scores on relationship, followed by engagement, positive emotions, and meaning with a lesser mean score is for accomplishment.

Figure 4.20 Bar chart showing Mean wellbeing of participants belong to Muslim religion on pre-test
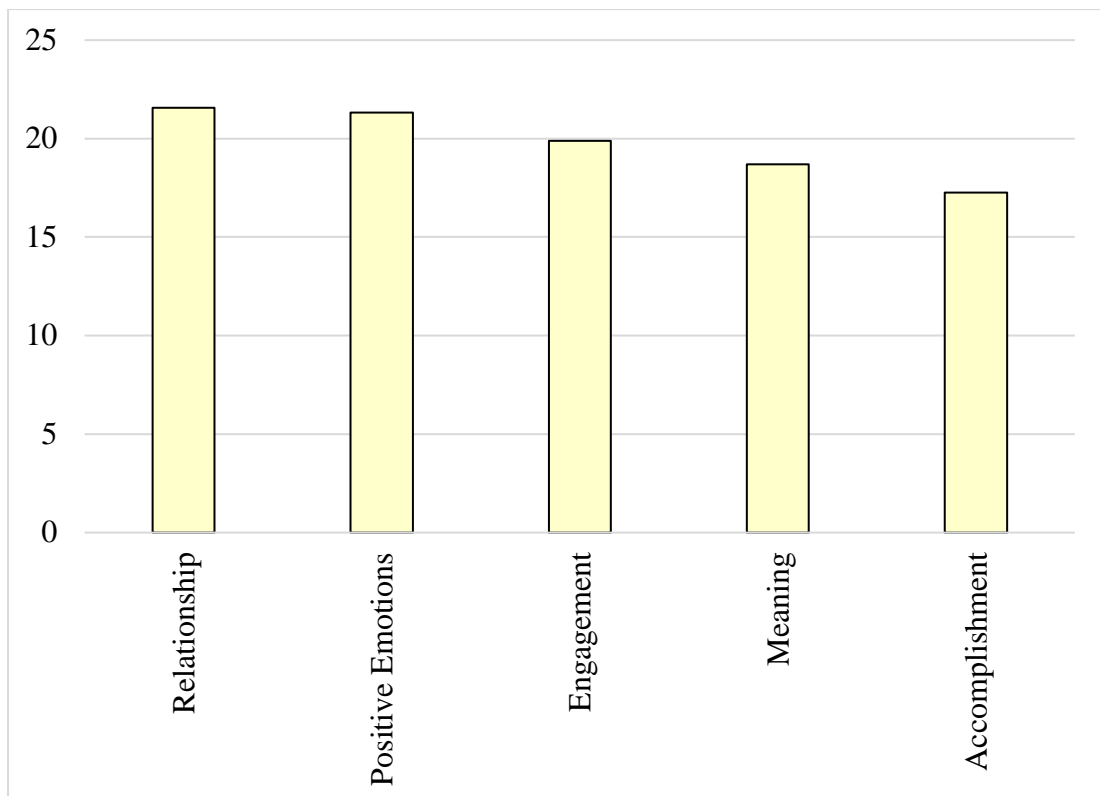
Figure 4.20 Bar chart showing Mean wellbeing of participants belong to Muslim religion on pre-test shows that the group has higher mean scores on relationship, followed by positive emotions, engagement and meaning with lesser mean scores is for accomplishment.

Table 4.9 ANOVA table showing the sum of squares, degrees of freedom, mean square, F, and significance value for character strengths and wellbeing between religions of participants

Variables	Sum of Squares	df	Mean Square	F	Sig.
Character Strength					
Appreciation of beauty and excellence	0.19	2	0.10	0.16	0.85
Bravery	2.42	2	1.21	1.73	0.18
Love	0.47	2	0.23	0.39	0.68
Prudence	2.17	2	1.09	1.99	0.14
Teamwork	0.84	2	0.42	0.68	0.51
Creativity	1.99	2	0.99	1.45	0.24
Curiosity	6.69	2	3.34	4.27	0.02
Fairness	0.25	2	0.12	0.22	0.80
Forgiveness	0.74	2	0.37	0.60	0.55
Gratitude	0.18	2	0.09	0.15	0.86
Honesty	1.76	2	0.88	1.96	0.14
Hope	1.02	2	0.51	0.85	0.43
Humor	3.23	2	1.62	1.75	0.18
Perseverance	0.45	2	0.23	0.41	0.67
Judgment	5.01	2	2.51	3.48	0.03
Kindness	2.12	2	1.06	1.73	0.18
Leadership	1.64	2	0.82	1.10	0.33
Love of Learning	5.58	2	2.79	2.95	0.06
Humility	1.03	2	0.52	1.68	0.51
Perspective	0.98	2	0.49	0.70	0.50
self-regulation	0.87	2	0.44	0.97	0.38
Social Intelligence	0.51	2	0.26	0.47	0.63
Spirituality	2.69	2	1.35	2.20	0.11
Zest	1.11	2	0.56	0.87	0.42
PERMA					
Positive Emotions	25.91	2	12.96	0.43	0.65
Engagement	175.96	2	87.98	3.78	0.03
Relationship	49.79	2	24.89	1.10	0.33
Meaning	98.18	2	49.09	1.77	0.17
Accomplishment	183.41	2	91.71	4.21	0.02

ANOVA table 4.9 showing a significant difference between participants from different religions such as Christianity, Hinduism, and Muslim in their character strength and wellbeing. It shows that for the strength of appreciation of beauty and

excellence, participants have a sum of squares of 0.19 and mean square of 0.10 with F of 0.16 and sig of 0.85 and df of 2.

For bravery, the sum of squares is 2.42, and the mean square is 0.10 with an f of 0.16 and a sig of 0.85. For love, the sum of squares is 0.47, and the mean square is 0.23 with an F ratio of 0.39 and a sig of 0.68. Prudence has a mean square of 1.09 and a sum of the square of 2.17 with an F value of 1.99 and a sig. of 0.14. For teamwork, 0.42 is the mean square, and the sum of square is 0.84 with an F value of 0.68 and sig. 0.51. Creativity has a mean square of 0.99 and a sum of square scores of 1.99 with F value 1.45 and sig. of 0.24. The sum of squares is 6.69, and the mean square for curiosity is 3.34 with an F of 4.27 and a sig. of 0.02. For fairness, 0.12 is the mean square, 0.25 is the sum of square, and F value 0.22 with sig. of 0.80 between groups. For forgiveness, 0.74 is the sum of squares is, and the mean square is 0.37 with df of 2, F value 0.60, and sig. of 0.55. The Sum of squares is 0.18, and 0.90 is the mean square for gratitude, F value is 0.15, and sig of 0.86. Honesty has a sum of square of 1.76 and mean square of 0.88 with an F value of 1.96 and sig. of 0.14. For the strength of hope, the mean square is 1.02, the sum of square is 0.51, with an F value of 1.75 and sig. of 0.43. The sum of squares for humor is 3.23, the mean square is 1.62, and the F value is 0.10 with a sig of 0.75. Perseverance has a sum of square scores of 0.45 and mean square scores of 0.23 with an F value of 0.41 and a sig. of 0.67. Judgment has a mean square of 2.51 and sum of square value of 5.01 with F of 3.48 and sig of 0.03. A mean square score of 1.06, the sum of square of 2.12, and F value of 1.73 with sig. of 0.18 is there for kindness. Leadership has a sum of square of 1.64 and mean square of 1.64 with F of 1.10 and sig. of 0.33. For the love of learning, participants have a sum of square scores of 5.58, mean square of 2.79, and F of 2.95, and sig. of 0.06. Humility has a sum of square of 1.03, a mean square of 0.52, and an F value of 1.68 with a sig. of 0.51. For perspective, the sum of squares is 0.98, and the mean square is 0.49 with an F of 0.70 and sig. Value of 0.50. Self-regulation has a sum of squares of 0.87, mean square of 0.44, and F of 0.97, and sig. of 0.38. Social intelligence has the sum of square values of 0.51, mean square of 0.26, F of 0.47, and sig. of 0.63. The Sum of square for spirituality is 2.69 with mean square, F value, and sig. as 1.35, 2.20, and 0.11,

respectively. For zest, groups have a sum of square scores of 1.11, mean square of 0.56 with F of 0.87, and sig. 0.42.

Positive emotion has a mean square of 12.96 and a sum of squares of 25.91 with F of 0.43 and sig of 0.65. The engagement has a mean square of 87.98 and sum of squares of 175.96, F of 3.78, and sig of 0.03. The mean square of 49.79 and the sum of squares for the relationship is 24.89 with an F of 1.10 and sig. 0.33. Meaning has the sum of square is 98.18 and mean square of 49.09, F of 1.77, and sig. of 0.17. Similarly, accomplishment has a mean square of 91.71, and sum of square of 183.41, and F scores of 4.21 with sig. 0.02.

From the sig. Values obtained between participants from different religions can understand that except for strengths such as curiosity, judgment, and love of learning, with sig of 0.02, 0.03, and 0.06, there is no significant difference between the character strengths of participants Hinduism, Christianity, and Muslim religion. Studies show that subjective wellbeing in children from different religions varies because each religion shapes them differently based on the culture (Kosher & Ben-Arieh, 2017). The significant difference is also found to be there for wellbeing elements such as engagement with a sig. of 0.03 and accomplishment with sig. of 0.02. In this study, variations in scores of wellbeing elements such as engagement and accomplishment in adolescents belonging to three religions may be due to differences in religious culture.

Table 4.10 showing the mean, number of participants, and standard deviation of participant's character strength and PERMA based on their birth order

Variables	First Born			Second Born			Third Born		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation
Character Strengths									
Appreciation of beauty and excellence	84	4.18	0.75	66	4.05	0.71	4	3.25	1.59
Bravery	84	3.50	0.84	66	3.42	0.81	4	2.94	1.25
Love	84	3.90	0.74	66	4.03	0.81	4	3.88	0.78
Prudence	84	3.25	0.77	66	3.09	0.70	4	2.81	0.75
Teamwork	84	3.63	0.79	66	3.56	0.73	4	2.75	1.22
Creativity	84	3.51	0.80	66	3.36	0.84	4	3.25	1.26
Curiosity	84	3.61	0.86	66	3.48	0.95	4	3.44	1.14
Fairness	84	3.63	0.76	66	3.56	0.72	4	3.38	0.78
Forgiveness	84	3.92	0.70	66	3.74	0.84	4	3.00	0.98
Gratitude	84	4.04	0.80	66	4.00	0.70	4	3.31	0.90
Honesty	84	3.05	0.68	66	3.08	0.68	4	2.88	0.60
Hope	84	3.99	0.69	66	3.73	0.79	4	3.38	1.61
Humor	84	3.71	1.03	66	3.98	0.82	4	2.94	1.21
Perseverance	84	3.25	0.74	66	2.86	0.68	4	2.19	0.63
Judgment	84	3.58	0.89	66	3.39	0.83	4	3.25	0.89
Kindness	84	3.91	0.77	66	3.74	0.77	4	2.94	1.03
Leadership	84	2.84	0.84	66	2.77	0.85	4	2.38	1.61
Love of Learning	84	3.69	0.96	66	3.35	1.02	4	3.88	0.43
Humility	84	3.18	0.83	66	3.06	0.94	4	3.19	0.52
Perspective	84	3.18	0.85	66	3.07	0.80	4	2.25	0.87
self-regulation	84	3.07	0.72	66	3.03	0.61	4	2.88	0.78
Social Intelligence	84	3.64	0.76	66	3.59	0.70	4	3.19	0.83
Spirituality	84	4.19	0.69	66	4.05	0.83	4	3.13	1.45
Zest	84	3.79	0.79	66	3.65	0.78	4	3.19	1.18
PERMA									
Positive Emotions	84	21.79	5.49	66	21.48	5.40	4	20.00	6.27
Engagement	84	22.60	4.96	66	21.97	4.75	4	19.50	6.81
Relationship	84	23.27	4.93	66	23.14	4.52	4	22.75	6.02
Meaning	84	22.10	5.45	66	19.76	4.65	4	18.75	7.93
Accomplishment	84	20.71	5.00	66	20.05	4.41	4	18.00	5.60

Table 4.10 shows the mean, number of participants, the standard deviation of participant's character strength, and PERMA based on their birth order. This shows that 84 firstborn participants, 66 second-born participants, and four third-born participants are there in this study. Firstborn participants has a mean scores of 4.18, 3.10, 3.90, 3.25, 3.63, 3.51, 3.61, 3.63, 3.92, 4.04, 3.05, 3.99, 3.71, 3.25, 3.58, 3.91, 2.84, 3.69, 3.18, 3.18, 3.07, 3.64, 4.19 and 3.79 with SD of 0.84, 0.74, 0.77, 0.79, 0.80, 0.86, 0.76, 0.70, 0.80, 0.78, 0.68, 1.03, 0.80, 0.74, 0.77, 0.84, 0.96, 0.83, 0.85, 0.72, 0.76, 0.69 and 0.79 respectively for appreciation of beauty and excellence, bravery, love, prudence, teamwork, creativity, curiosity, fairness, forgiveness, gratitude, honesty, hope, humor, perseverance, judgment, kindness, leadership, love of learning, humility, perspective, self-regulation, social intelligence, spirituality and zest. They also have a mean score of 21.79 with an SD of 5.49 for positive emotions, a mean score of 22.60 with an SD of 4.96 for engagement, 23.27 with an SD of 4.93 for the element of t relationship, and a mean score of 22.10 and 20.71 with an SD of 5.45 and 5 for meaning and accomplishment.

There are mean scores of 4.05, 3.42, 4.03, 3.09, 3.56, 3.36, 3.48, 3.56, 3.74, 4, 3.08, 3.73, 3.98, 2.89, 3.39, 3.74, 2.77, 3.35, 3.06, 3.07, 3.03, 3.59, 4.05 and 3.65 with SD of 0.71, 0.81, 0.81, 0.70, 0.73, 0.84, 0.95, 0.72, 0.84, 0.70, 0.68, 0.79, 0.82, 0.68, 0.83, 0.77, 0.85, 1.02, 0.94, 0.80, 0.72, 0.70, 0.83 and 0.78 respectively for appreciation of beauty and excellence, bravery, love, prudence, teamwork, creativity, curiosity, fairness, forgiveness, gratitude, honesty, hope, humor, perseverance, judgment, kindness, leadership, love of learning, humility, perspective, self-regulation, social intelligence, spirituality and zest for second born adolescents. They also have mean score of 21.48 with SD of 5.40 for positive emotions, mean scores of 21.97 with SD of 4.75 for engagement, 23.14 with SD of 4.52 for relationship and mean scores of 19.76 and 20.04 with SD of 4.65 and 4.41 for meaning and accomplishment.

Third born adolescents have a mean score of 3.25, 2.94, 3.88, 2.81, 2.75, 3.25, 3.44, 3.38, 3.00, 3.31, 2.88, 3.38, 2.94, 2.19, 3.25, 2.94, 2.38, 3.88, 3.19, 2.25, 2.88, 3.19, 3.13 and 3.19 with SD of 1.59, 1.25, 0.78, 0.75, 1.22, 1.26, 1.14, 0.78, 0.98, 0.90, 0.60, 1.61, 1.21, 0.63, 0.89, 1.03, 1.61, 0.43, 0.52, 0.87, 0.78, 0.83, 1.45 and 1.18 for strengths such as appreciation of beauty and excellence, bravery, love, prudence,

teamwork, creativity, curiosity, fairness, forgiveness, gratitude, honesty, hope, humor, perseverance, judgment, kindness, leadership, love of learning, humility, perspective, self-regulation, social intelligence, spirituality and zest respectively for third born adolescents. Mean scores for PERMA element positive emotion is 20 with SD of 6.27, engagement is 19.50 with SD of 6.81, 22.75 with SD 6.02 for relationship, 18.75 with SD 21.01 for meaning and 18 with SD 5.60 for accomplishment.

Figure 4.21 Bar chart showing mean order of character strength of firstborn on pre-test
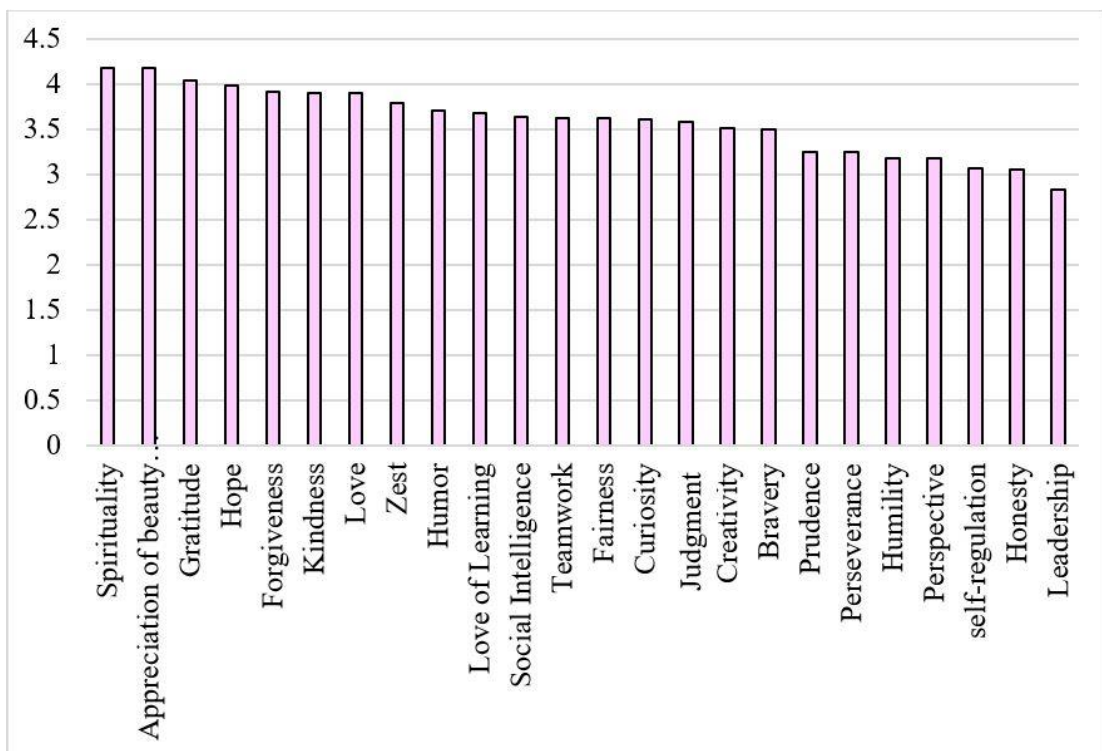
Figure 4.21 Bar chart showing mean order of character strength of firstborn on pre-test shows that strengths such as spirituality, appreciation of beauty and excellence, gratitude, hope, and forgiveness are the strengths with higher mean scores for firstborn adolescents. Following that, other strengths are kindness, love, zest, humor, love of learning, social intelligence, teamwork, fairness, curiosity, judgment, creativity, bravery, prudence, and perseverance. The strengths with lower mean scores include humility, perspective, self-regulation, honesty, and leadership, with leadership has the lowest mean scores.

Figure 4.22 Bar chart showing mean order of character strength of the second-born on pre-test
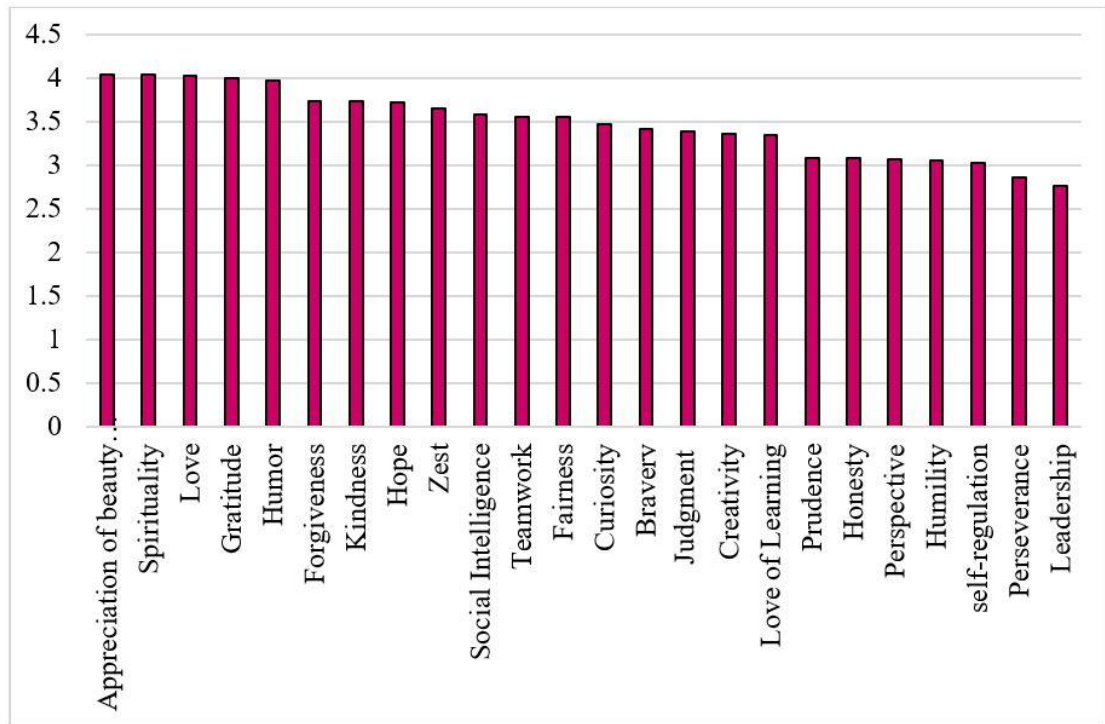
Figure 4.22 Bar chart showing the mean order of character strength of the second-born on pre-test shows that strengths such as appreciation of beauty and excellence, spirituality, love, gratitude, humor, and kindness are the strengths with higher mean scores second-born adolescents. Following that, other strengths are forgiveness, hope, zest, social intelligence, fairness, teamwork, curiosity, bravery, judgment, and creativity, love of learning, prudence, and honesty. The strengths with lower mean scores include humility, self-regulation, perspective, perseverance, and leadership have the lowest mean scores.

Figure 4.23 Bar chart showing mean order of character strength of third-born on pre-test
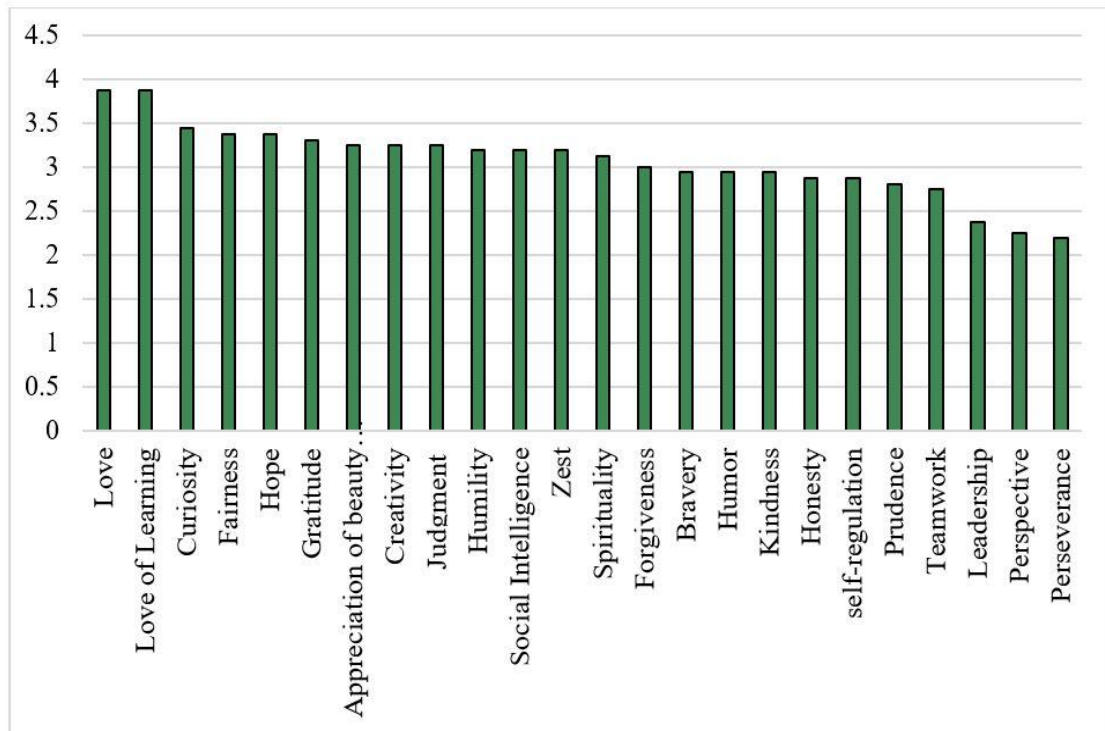
Figure 4.23 Bar chart showing mean order of character strength of third-born on pre-test shows that strengths such as love, love of learning, curiosity, fairness, hope, and gratitude are the topmost strengths with higher mean scores. Following that, other strengths such as appreciation of beauty and excellence, creativity, judgment, humility, social intelligence, zest, spirituality, forgiveness, bravery, humor, kindness, honesty, self-regulation, and prudence are in the order of higher mean scores to lower mean scores. Further, the strengths such as teamwork, leadership, perspective, and perseverance are the strengths with lower mean scores.

Figure 4.24 Bar chart showing mean scores on each PERMA element of firstborn participants on pre-test
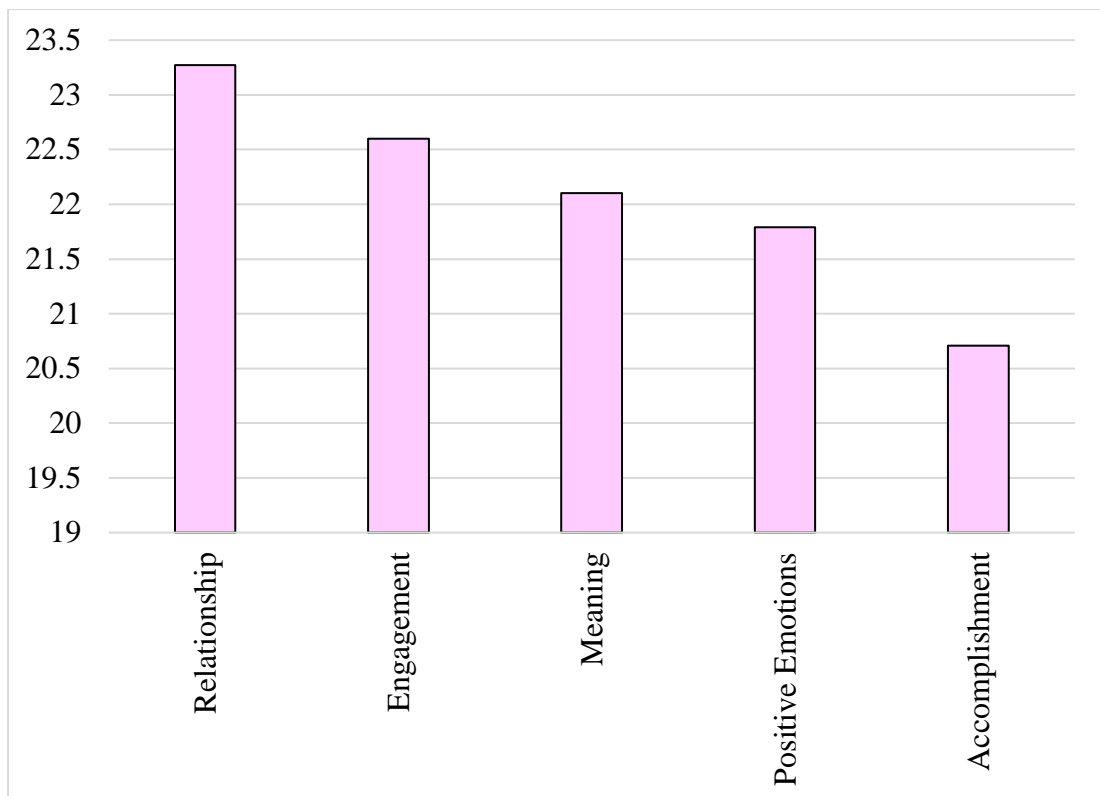
Figure 4.24 Bar chart showing mean scores on each PERMA element of firstborn participants on the pre-test. It shows that the relationship has a higher mean score following engagement, meaning, positive emotions, and accomplishment. Accomplishment has the lowest mean score.

Figure 4.25 Bar chart showing mean scores on each PERMA element of second-born participants on pre-test
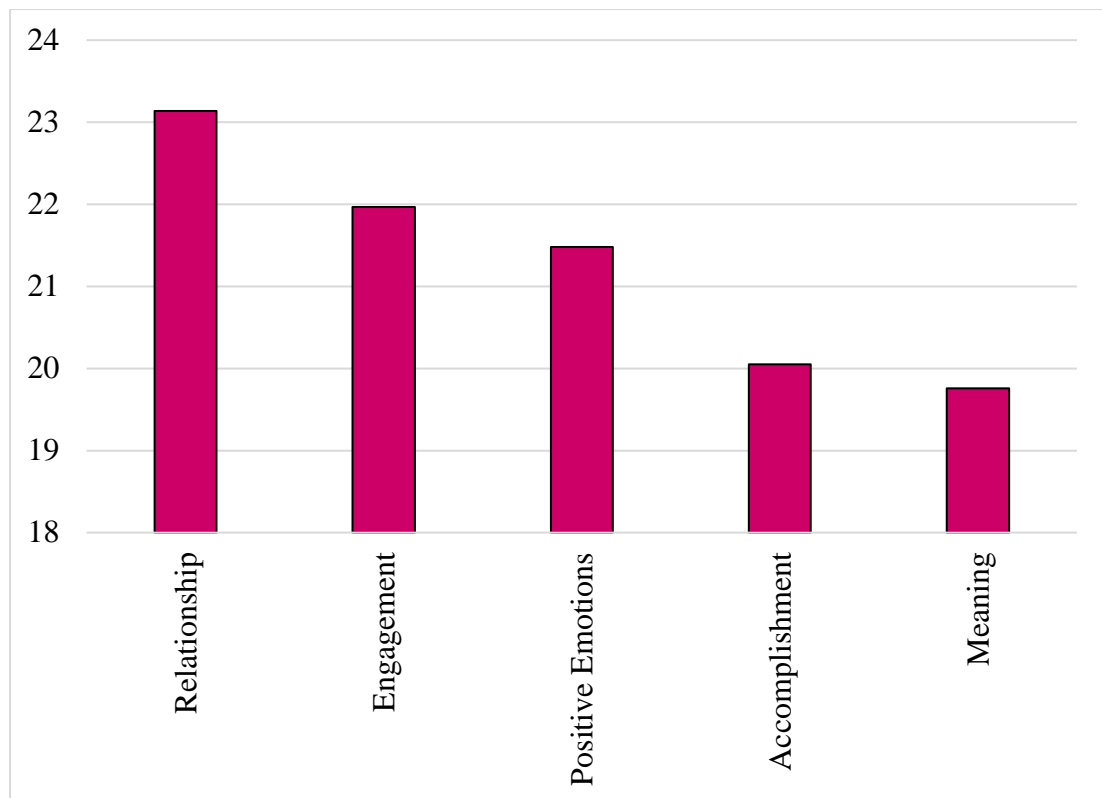
Figure 4.25 Bar chart showing mean scores on each PERMA element of second-born participants on the pre-test. It shows that relationship has a higher mean score following engagement, positive emotions, accomplishment, and meaning. Meaning has the lowest mean score.

Figure 4.26 Bar chart showing mean scores on each PERMA element of third-born participants on pre-test
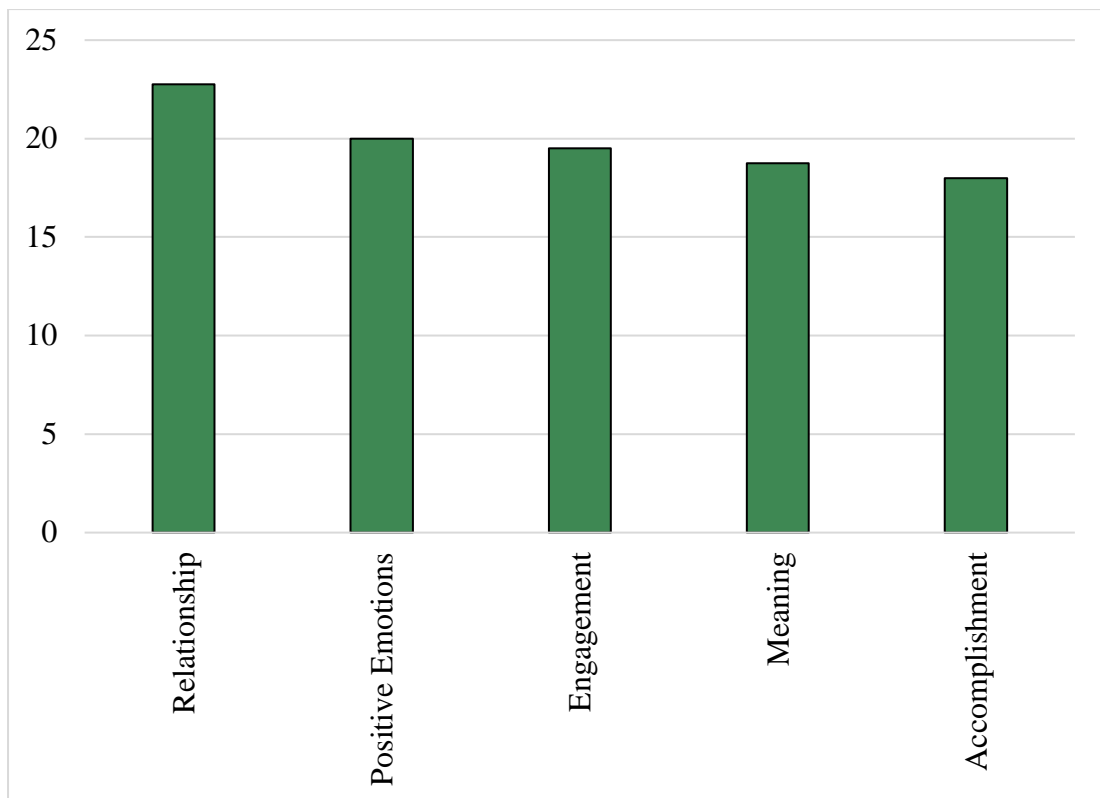
Figure 4.26 Bar chart showing mean scores on each PERMA element of second-born participants on the pre-test. It shows that relationship has a higher mean score following positive emotions, engagement, meaning, and accomplishment. Accomplishment has the lowest mean score.

Table 4.11 ANOVA table showing the sum of squares, df, mean squares, f value and sig of character strength and PERMA between firstborn, second born, and third born participants

Variables	Sum of Squares	df	Mean Square	F	Sig.
Character Strength					
Appreciation of beauty and excellence	3.52	2	1.76	3.05	0.05
Bravery	1.28	2	0.64	0.91	0.41
Love	0.69	2	0.35	0.58	0.56
Prudence	1.42	2	0.71	1.29	0.28
Teamwork	3.04	2	1.52	2.52	0.08
Creativity	0.96	2	0.48	0.70	0.50
Curiosity	0.70	2	0.35	0.43	0.65
Fairness	0.40	2	0.20	0.36	0.70
Forgiveness	3.98	2	1.99	3.33	0.04
Gratitude	2.00	2	1.00	1.71	0.18
Honesty	0.17	2	0.08	0.18	0.84
Hope	3.41	2	1.71	2.93	0.06
Humor	5.93	2	2.97	3.27	0.04
Perseverance	7.79	2	3.90	7.69	0.00
Judgment	1.53	2	0.76	1.03	0.36
Kindness	4.23	2	2.12	3.53	0.03
Leadership	0.92	2	0.46	0.62	0.54
Love of Learning	4.59	2	2.30	2.41	0.09
Humility	0.56	2	0.28	0.37	0.69
Perspective	3.43	2	1.72	2.49	0.09
self-regulation	0.20	2	0.10	0.22	0.80
Social Intelligence	0.80	2	0.40	0.74	0.48
Spirituality	4.62	2	2.31	3.85	0.02
Zest	1.91	2	0.95	1.50	0.23
PERMA					
Positive Emotions	14.00	2	7.00	0.23	0.79
Engagement	45.45	2	22.72	0.94	0.39
Relationship	1.53	2	2.77	0.03	0.97
Meaning	222.88	2	111.44	4.14	0.02
Accomplishment	39.35	2	19.68	0.87	0.42

ANOVA table 4.11 showing a significant difference between firstborn, second born, and third born participants in their character strengths and wellbeing. It shows that for the strength of appreciation of beauty and excellence, participants have a sum of squares of 3.52 and mean square of 1.76 with F of 3.05 and sig of 0.5 and df of 2.

For bravery, the sum of squares is 1.28, and the mean square is 0.64 with an F of 0.91 and a sig of 0.41. For love, the sum of squares is 0.69, and the mean square is 0.35 with an F ratio of 0.58 and a sig of 0.56. Prudence has a mean square of 0.71 and a sum of square of 1.42 with an F value of 1.29 and a sig. of 0.28. For teamwork, 1.52 is the mean square, and a sum of square is 1.42 with an F value of 1.29 and sig. 0.28. Creativity has a mean square of 0.48 and sum of square scores of 0.96 with an F value of 0.70 and sig. of 0.50. The Sum of squares is 0.70, and the mean square for curiosity is 0.35 with an F of 0.43 and a sig. of 0.65. For fairness, 0.20 is the mean square, 0.40 is the sum of square, and F value 0.36 with sig. of 0.70 between groups. For forgiveness 3.98, the sum of squares is and mean square is 1.99 with df of 2, F value 3.33, and sig. of 0.04. The Sum of squares is 2 and 1 is the mean square for gratitude, F value is 1.71, and sig of 0.18. Honesty has a sum of square of 0.17 and mean square of 0.08 with F value of 0.18 and sig. of 0.84. For the strength of hope, the mean square is 1.71, the sum of square is 3.41, with an F value of 2.93 and sig. of 0.06. Sum of squares for humor is 5.93, a mean square is 2.97, and the F value for is 3.27 with and sig of 0.04. Perseverance has a sum of square scores of 7.79 and mean square scores of 3.90 with an F value of 7.69 and sig. of 0.00. Judgment has a mean square of 0.76 and a sum of square value of 1.53 with F of 1.03 and sig of 0.363. A mean square score of 2.12, the sum of square of 4.23, and F value of 3.53 with sig. of 0.03 is there for kindness. Leadership has a sum of square of 0.92 and mean square of 0.46 with F of 0.62 and sig. of 0.54. For the love of learning, participants have a sum of square scores of 4.59, mean square of 2.30, and F of 2.41, and sig. of 0.09. Humility has a sum of square of 0.56, a mean square of 0.28, and an F value of 0.37 with a sig. of 0.69. For perspective, the sum of squares is 3.43, and the mean square is 1.72 with an F of 2.49 and sig. Value of 0.09. Self-regulation has a sum of squares of 0.20, mean square of 0.10, and F of 022, and sig. of 0.80. Social intelligence has the sum of square values of 0.80, mean square of 0.40, F of 0.74, and sig. of 0.48. The Sum of square for spirituality is 4.62 with mean square, F value, and sig. as 2.31, 3.85, and 0.02, respectively. For zest groups have a sum of square scores of 1.91, mean square of 0.95 with F of 1.50, and sig. 0.23.

Positive emotion has a mean square of 7 and sum of squares of 14 with F of 0.23 and sig of 0.79. The engagement has a mean square of 22.72 and sum of squares

of 45.45, F of 0.94, and sig of 0.39. The mean square of 1.53 and the sum of squares for the relationship is 0.77 with F of 0.03 and sig. 0.97. Meaning has a sum of square is 222.88 and mean square of 111.44, F of 4.14 and sig. of 0.02. Similarly, accomplishment has a mean square of 19.68, and sum of square of 39.35, and F scores of 0.87 with sig. 0.42.

From the sig. Values obtained between participants from of different birth orders, it's found out that there is a significant difference in appreciation of beauty and excellence, forgiveness, humor, perseverance, kindness, spirituality, and meaning with sig of 0.05, 0.04, 0.04, 0.00, 0.03, 0.02 and 0.02 respectively. Except for these strengths and elements of wellbeing, there is no significant difference found between character strengths and elements of the wellbeing of participants based on their birth order.

Table 4.12 shows the mean score, number of participants, and standard deviation of character strength and wellbeing of single children and participants with one sibling

Variables	Single Child			One Sibling		
	N	Mean	SD	N	Mean	SD
Character Strengths						
Appreciation of beauty and excellence	22	4.36	0.52	103	4.09	0.73
Bravery	22	3.34	0.86	103	3.46	0.82
Love	22	3.73	0.82	103	4.00	0.76
Prudence	22	3.18	0.70	103	3.15	0.77
Teamwork	22	3.45	0.93	103	3.59	0.72
Creativity	22	3.44	0.76	103	3.45	0.83
Curiosity	22	3.61	0.69	103	3.60	0.94
Fairness	22	3.76	0.70	103	3.57	0.75
Forgiveness	22	3.76	0.69	103	3.81	0.78
Gratitude	22	4.15	0.69	103	4.00	0.74
Honesty	22	2.97	0.66	103	3.06	0.60
Hope	22	3.94	0.77	103	3.91	0.73
Humor	22	3.56	1.14	103	3.90	0.91
Perseverance	22	3.27	0.69	103	3.00	0.74
Judgment	22	3.72	0.76	103	3.41	0.88
Kindness	22	3.86	0.76	103	3.83	0.78
Leadership	22	2.55	0.75	103	2.79	0.87
Love of Learning	22	3.78	1.03	103	3.49	0.99
Humility	22	2.80	0.73	103	3.20	0.90
Perspective	22	2.93	0.85	103	3.18	0.81
Self-regulation	22	3.07	0.79	103	3.04	0.62
Social Intelligence	22	3.60	0.72	103	3.63	0.69
Spirituality	22	3.98	0.83	103	4.17	0.73
Zest	22	3.48	0.86	103	3.79	0.75
PERMA						
Positive Emotions	22	19.45	6.53	103	22.17	5.08
Engagement	22	21.64	5.06	103	22.55	5.04
Relationship	22	22.36	5.25	103	23.51	4.73
Meaning	22	20.23	6.02	103	21.40	5.02
Accomplishment	22	19.59	4.89	103	20.59	4.75

Table 4.12 showing mean score, number of participants and standard deviation of character strength and wellbeing of participants based on number of their siblings. It shows that single child has a mean scores of 4.36, 3.34, 3.73, 3.18, 3.45, 3.44, 3.61, 3.76, 3.76, 4.15, 2.97, 3.94, 3.56, 3.27, 3.72, 3.86, 2.55, 3.78, 2.80, 2.93, 3.07, 3.60, 3.98 and 3.48 with SD of 0.52, 0.86, 0.82, 0.70, 0.93, 0.66, 0.69, 0.70, 0.69, 0.69,

0.77, 1.14, 0.69, 0.76, 0.76, 0.75, 1.03, 0.73, 0.85, 0.79, 0.72, 0.83 and 0.86 respectively for strengths of appreciation of beauty and excellence, bravery, love, prudence, teamwork, creativity, curiosity, fairness, forgiveness, gratitude, honesty, hope, humor, perseverance, judgment, kindness, leadership, love of learning, humility, perspective, self-regulation, social intelligence, spirituality and zest. PERMA elements such as positive emotion, engagement, relationship, meaning and accomplishment has mean scores of 19.45, 21.64, 22.36, 20.23 and 19.59 respectively with standard deviation scores of 6.53, 5.06, 5.25, 6.02 and 4.89.

Participant with one sibling has a mean scores of 4.09, 3.46, 4.00, 3.15, 3.59, 3.45, 3.60, 3.57, 3.81, 4.00, 3.08, 3.91, 3.90, 3.00, 3.41, 3.83, 2.79, 3.49, 3.20, 3.18, 3.04, 3.63, 4.17 and 3.79 with SD of 0.73, 0.82, 0.76, 0.77, 0.72, 0.83, 0.94, 0.75, 0.78, 0.74, 0.70, 0.73, 0.91, 0.74, 0.88, 0.78, 0.87, 0.90, 0.92, 0.62, 0.66, 0.73 and 0.75 respectively for strengths of appreciation of beauty and excellence, bravery, love, prudence, teamwork, creativity, curiosity, fairness, forgiveness, gratitude, honesty, hope, humor, perseverance, judgment, kindness, leadership, love of learning, humility, perspective, self-regulation, social intelligence, spirituality and zest. PERMA elements such as positive emotion, engagement, relationship, meaning and accomplishment has mean scores of 22.17, 22.55, 23.51, 21.40 and 20.59 respectively with standard deviation scores of 5.08, 5.04, 4.73, 5.02 and 4.75.

Table 4.13 shows the mean score, number of participants, and standard deviation of character strength and wellbeing of participants with two and three siblings

Variables	Two Siblings			Three Siblings		
	N	Mean	SD	N	Mean	SD
Character Strength						
Appreciation of beauty and excellence	24	3.94	1.06	4	3.63	0.66
Bravery	24	3.44	0.87	4	3.63	1.03
Love	24	3.93	0.79	4	4.31	0.38
Prudence	24	3.21	0.72	4	3.06	0.63
Teamwork	24	3.52	0.93	4	4.13	0.63
Creativity	24	3.38	0.86	4	3.50	1.27
Curiosity	24	3.27	0.87	4	3.31	1.09
Fairness	24	3.53	0.76	4	3.44	0.43
Forgiveness	24	3.85	0.95	4	4.00	0.41
Gratitude	24	3.82	0.98	4	4.38	0.48
Honesty	24	3.13	0.78	4	3.31	0.97
Hope	24	3.60	0.88	4	3.69	1.14
Humor	24	3.52	0.97	4	4.31	0.85
Perseverance	24	3.15	0.84	4	3.25	0.46
Judgment	24	3.66	0.84	4	3.06	0.63
Kindness	24	3.64	0.88	4	4.06	0.72
Leadership	24	2.95	0.93	4	3.56	0.66
Love of Learning	24	3.58	0.83	4	3.44	1.68
Humility	24	3.19	0.87	4	2.56	0.72
Perspective	24	2.85	0.91	4	3.38	0.78
Self-regulation	24	3.08	0.76	4	3.00	0.94
Social Intelligence	24	3.43	0.94	4	4.00	0.54
Spirituality	24	3.93	1.00	4	4.06	0.69
Zest	24	3.49	0.92	4	4.13	0.32
PERMA						
Positive Emotions	24	20.46	5.66	4	24.00	2.16
Engagement	24	21.13	4.58	4	23.25	1.26
Relationship	24	22.50	4.62	4	25.25	2.36
Meaning	24	19.38	5.90	4	23.75	0.96
Accomplishment	24	19.42	4.81	4	22.25	3.10

Table 4.13 show that mean scores of adolescents with two siblings for strengths of appreciation of beauty and excellence, bravery, love, prudence, teamwork, creativity, curiosity, fairness, forgiveness, gratitude, honesty, hope, humor, perseverance, judgment, kindness, leadership, love of learning, humility, perspective, self-regulation, social intelligence, spirituality and zest are 3.94, 3.44, 3.93, 3.21, 3.52, 3.38, 3.27, 3.53,

3.85, 3.82, 3.06, 3.60, 3.52, 3.15, 3.66, 3.64, 2.95, 3.58, 3.19, 2.85, 3.08, 3.43, 3.93 and 3.49 with standard deviations scores of 1.06, 0.87, 0.79, 0.72, 0.93, 0.86, 0.87, 0.76, 0.95, 0.98, 0.60, 0.88, 0.97, 0.84, 0.84, 0.88, 0.93, 0.83, 0.87, 0.91, 0.76, 0.94, 1.00 and 0.92 respectively for each strengths. For positive emotions they have a mean score of 20.46 with SD of 5.66. Mean scores for engagement, relationship, meaning and accomplishment are 21.13, 22.50, 19.38, and 19.42 with SD of 4.62, 4.96, 5.90 and 4.81 respectively.

It also shows that adolescents with three siblings has a mean scores of 3.63, 3.63, 4.31, 3.06, 4.13, 3.50, 3.31, 3.44, 4.00, 4.38, 3.13, 3.69, 4.31, 3.25, 3.06, 4.06, 3.56, 3.44, 2.56, 3.38, 3.00, 4.00, 4.06 and 4.13 with SD of 0.66, 1.03, 0.38, 0.63, 0.63, 1.27, 1.09, 0.43, 0.41, 0.48, 0.78, 1.14, 0.85, 0.46, 0.63, 0.72, 0.66, 1.68, 0.72, 0.78, 0.94, 0.54, 0.69, and 0.32 respectively for strengths of appreciation of beauty and excellence, bravery, love, prudence, teamwork, creativity, curiosity, fairness, forgiveness, gratitude, honesty, hope, humor, perseverance, judgment, kindness, leadership, love of learning, humility, perspective, self-regulation, social intelligence, spirituality and zest. PERMA elements such as positive emotion, engagement, relationship, meaning and accomplishment has mean scores of 24, 23.25, 25.25, 23.75 and 22.25 respectively with standard deviation scores of 2.16,1.26, 2.36, 0.96 and 3.10.

Figure 4.27 Bar chart showing mean strength order of single child on pre-test
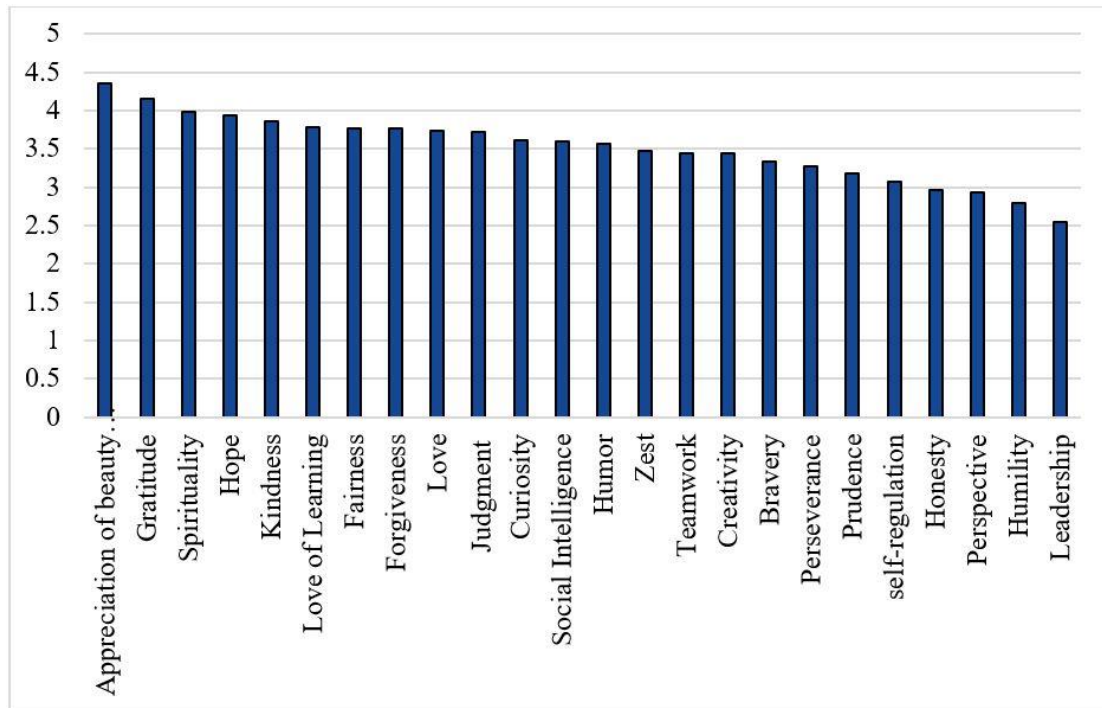
Figure 4.27 Bar chart indicating mean order of character strength of single child on pre-test shows that the mean order from the highest mean score to lowest mean score is the appreciation of beauty and excellence, gratitude, spirituality, hope, kindness, love of learning, fairness, forgiveness, love, judgment, curiosity, social intelligence, humor, zest, teamwork, creativity, bravery, perseverance, prudence, self-regulation, honesty, perspective, humility, and leadership.

Figure 4.28 Bar chart showing mean strength order of participants with one sibling on pre-test
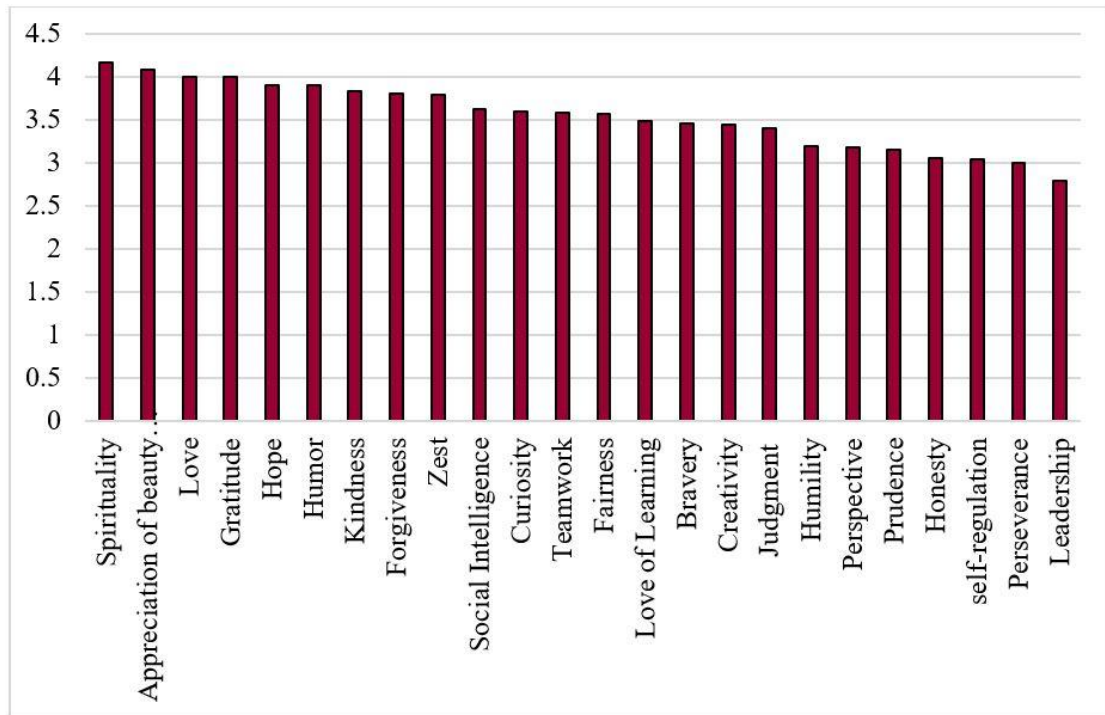
Figure 4.28 Bar chart indicating mean order of character strength of participants with one sibling on pre-test shows that the higher mean score is for spirituality and the lower mean score is for leadership. Other strengths such as appreciation of beauty and excellence, love, gratitude, hope, humor, kindness, forgiveness, zest, social intelligence, curiosity, teamwork, fairness, love of learning, bravery, creativity, judgment, humility, perspective, prudence, honesty, self-regulation, and perseverance lie between the strength of higher mean of spirituality, and the lesser mean score is for leadership in order of highest to lowest scored strengths.

Figure 4.29 Bar chart showing mean strength order of participants with two siblings on pre-test
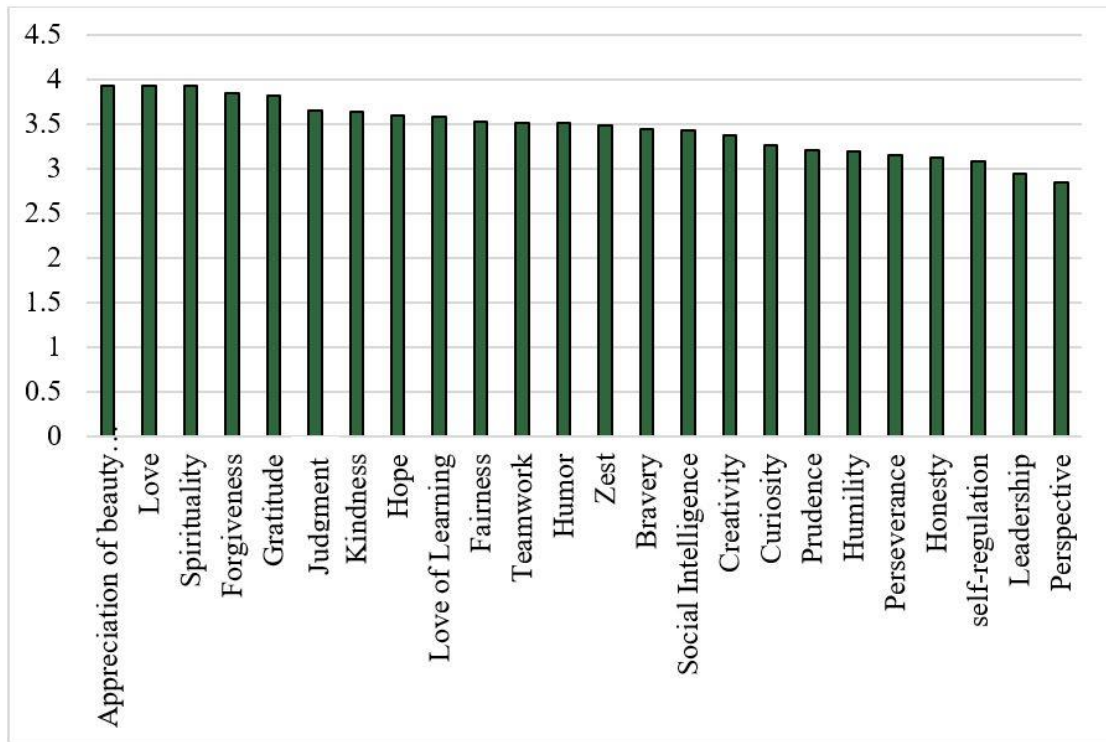
Figure 4.29 Bar chart indicating mean order of character strength of participants with two siblings on pre-test shows that the mean order from the highest mean score to lowest mean score is the appreciation of beauty and excellence, love, spirituality, forgiveness, gratitude, judgment, kindness, hope, love of learning, fairness, teamwork, humor, zest, bravery, social intelligence, creativity, curiosity, prudence, humility, perseverance, honesty, self-regulation, leadership, and perspective.

Figure 4.30 Bar chart showing mean strength order of participants with three siblings on pre-test
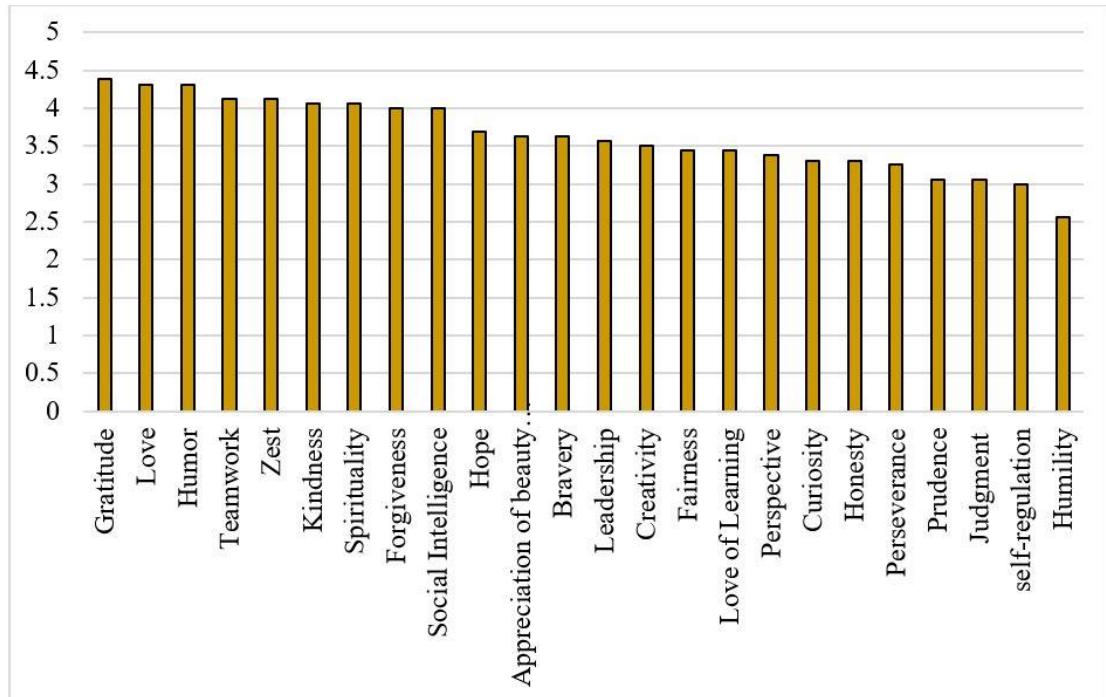
Figure 4.30 Bar chart indicating mean order of character strength of participants with two siblings on pre-test shows that the mean order from the highest mean score to lowest mean score is gratitude, love, humor, teamwork, zest, kindness, spirituality, forgiveness, social-intelligence, hope, appreciation of beauty and excellence, bravery, leadership, creativity, fairness, love of learning, perspective, curiosity, honesty, perseverance, prudence, judgment, self-regulation, and humility.

Figure 4.31 Bar chart showing mean score of the single child on each element of wellbeing on pre-test
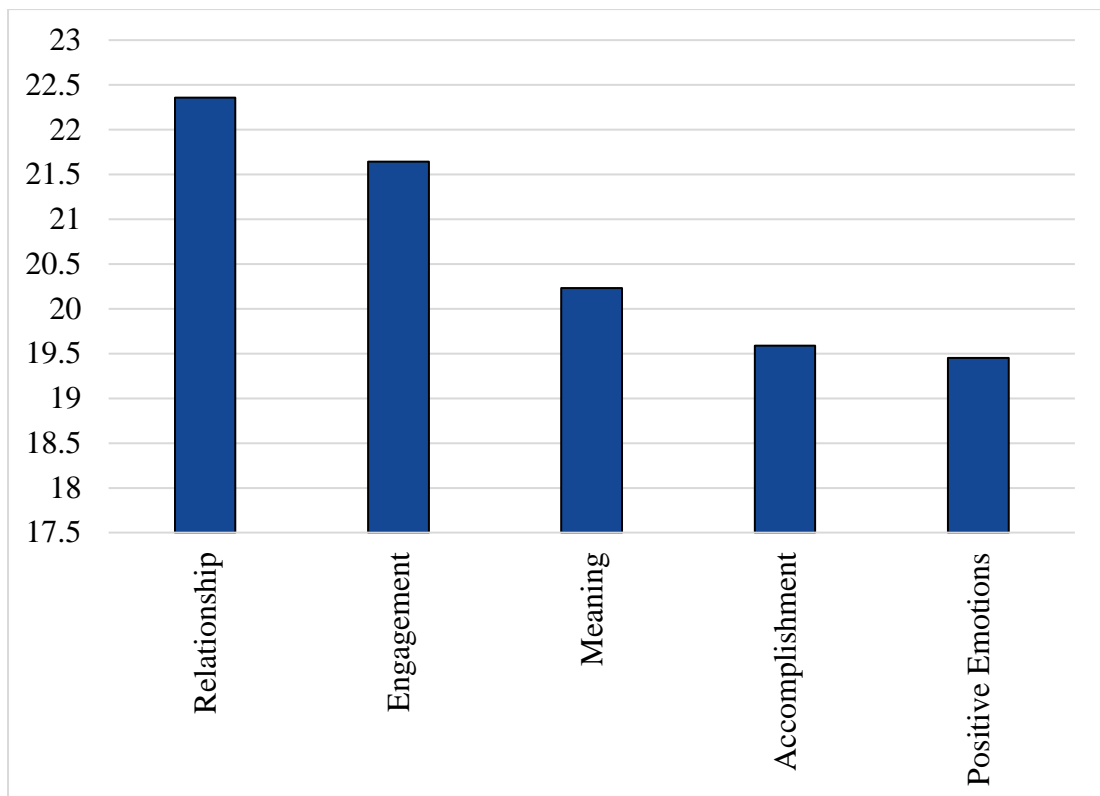
Figure 4.31 Bar chart showing a mean score of the single child on each element of wellbeing on pre-test shows that the highest scored element of wellbeing is relationship and then engagement, meaning, and accomplishment. The lowest mean score is for positive emotion.

Figure 4.32 Bar chart showing mean wellbeing score of participants with one sibling on pre-test
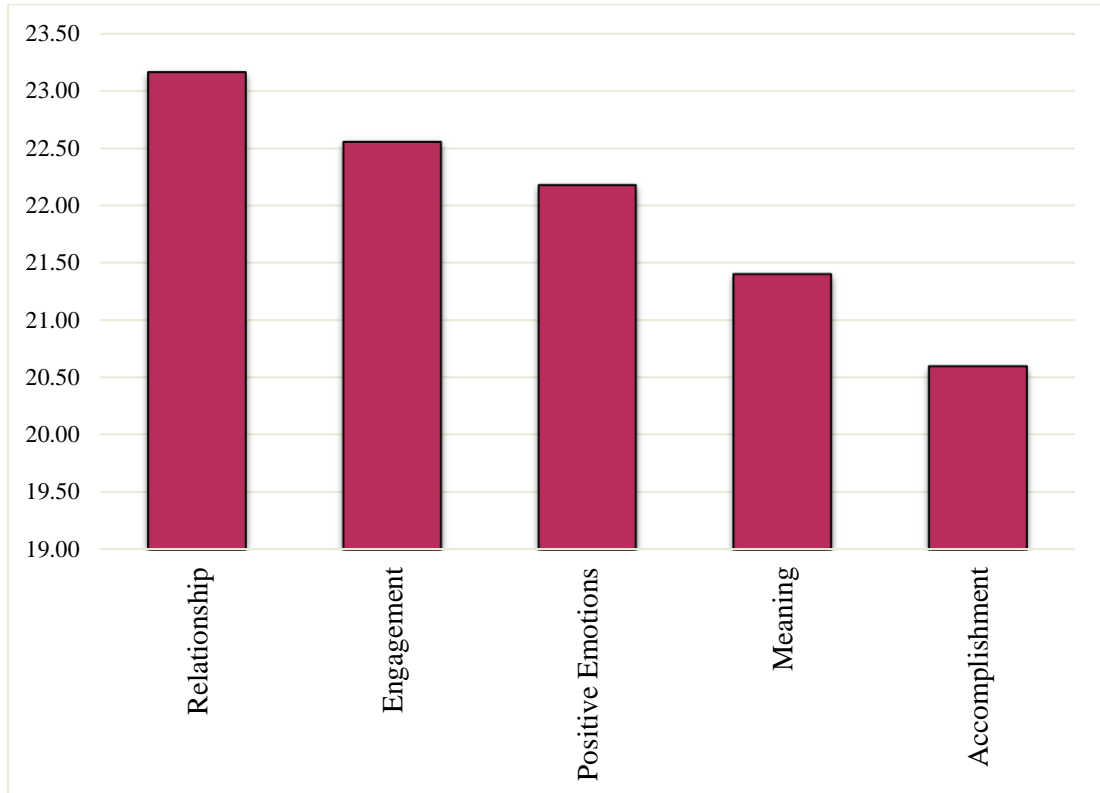
Figure 4.32 Bar chart showing the mean score of participants with one sibling on each element of wellbeing on pre-test shows that the highest scored element of wellbeing is relationship. Then engagement, positive emotion, and meaning are respectively in second, third, and fourth highest mean scores compared to accomplishment, which has comparatively lower mean scores.

Figure 4.33 Bar chart showing mean wellbeing score of participants with two siblings on pre-test
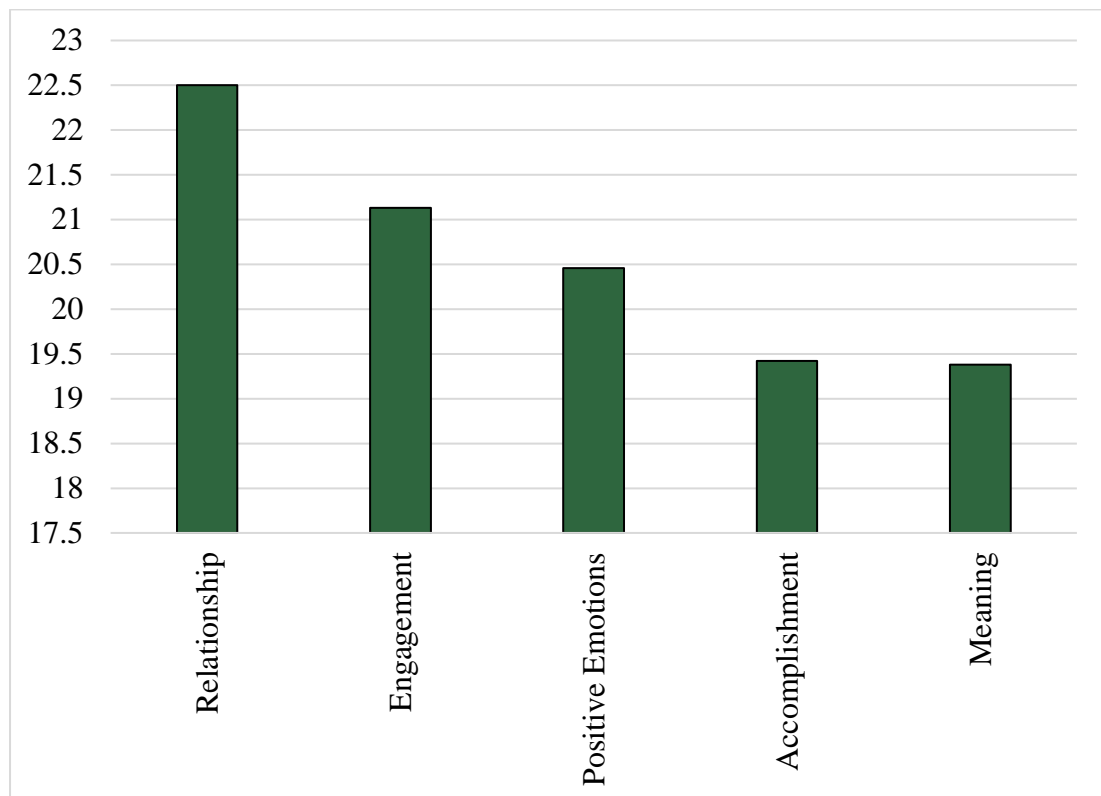
Figure 4.33 Bar chart showing a mean score of participants with two siblings on each element of wellbeing on pre-test shows that the highest scored element of wellbeing is relationship and then engagement, positive emotion, and accomplishment. The lowest mean score is for meaning.

Figure 4.34 Bar chart showing mean wellbeing score of participants with three siblings on pre-test
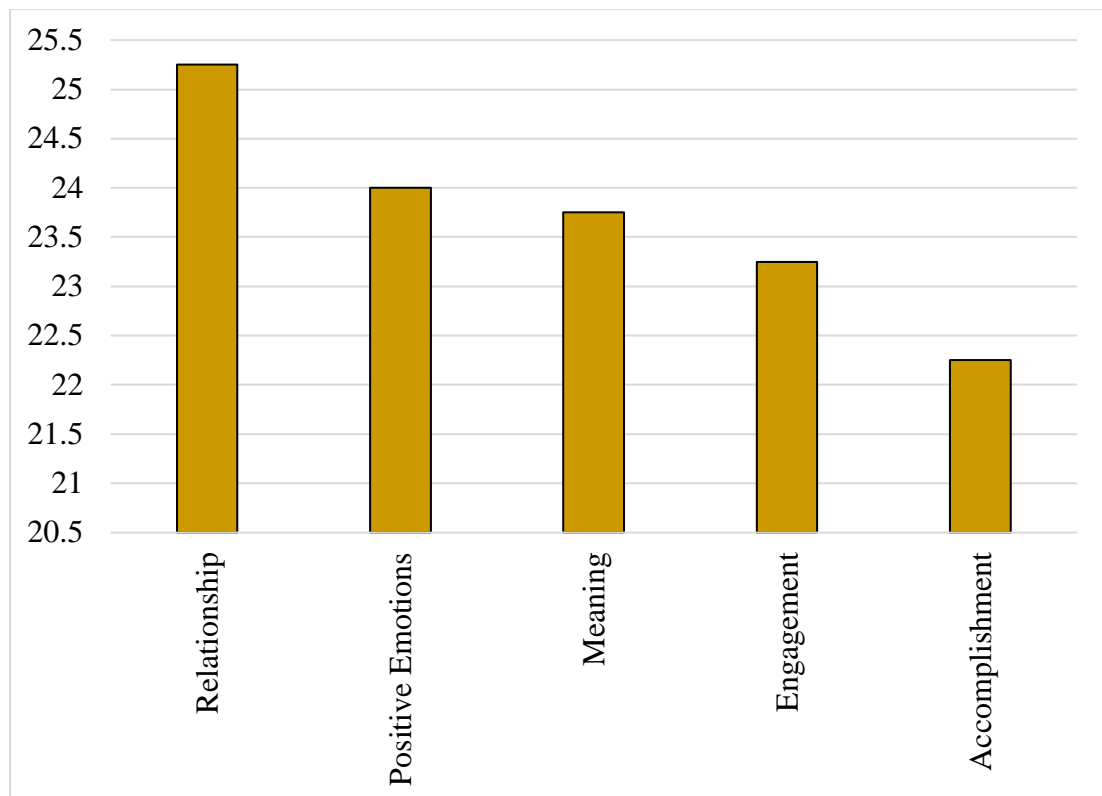
Figure 4.34 Bar chart showing a mean score of participants with three siblings on each element of wellbeing on pre-test shows that the highest scored element of wellbeing is relationship and positive emotion, meaning, and engagement. The lowest mean score is for accomplishment.

Table 4.14 ANOVA table showing the sum of squares, df, mean square, F, and sig value for character strength and PERMA between single child, with one, two, and three siblings

Variables	Sum of Squares	df	Mean Square	F	Sig.
Character Strengths					
Appreciation of beauty and excellence	3.07	3	1.02	1.76	0.16
Bravery	0.38	3	0.13	0.18	0.91
Love	1.90	3	0.63	1.08	0.36
Prudence	0.11	3	0.04	0.07	0.98
Teamwork	1.62	3	0.54	0.88	0.46
Creativity	0.12	3	0.04	0.06	0.98
Curiosity	2.40	3	0.80	0.99	0.40
Fairness	0.87	3	0.29	0.53	0.66
Forgiveness	0.24	3	0.08	0.13	0.94
Gratitude	1.80	3	0.60	1.01	0.39
Honesty	0.26	3	0.09	0.19	0.90
Hope	2.10	3	0.70	1.17	0.32
Humor	5.16	3	1.72	1.88	0.14
Perseverance	1.71	3	0.57	1.03	0.38
Judgment	3.17	3	1.06	1.44	0.23
Kindness	1.07	3	0.36	0.57	0.63
Leadership	4.29	3	1.43	1.94	0.13
Love of Learning	1.68	3	0.56	0.57	0.64
Humility	4.35	3	1.45	1.93	0.13
Perspective	3.03	3	1.01	1.46	0.23
self-regulation	0.06	3	0.02	0.04	0.99
Social Intelligence	1.44	3	0.48	0.89	0.45
Spirituality	1.49	3	0.50	0.79	0.50
Zest	3.68	3	1.23	1.98	0.12
PERMA					
Positive Emotions	189.39	3	63.13	2.20	0.09
Engagement	51.96	3	17.32	0.71	0.55
Relationship	53.96	3	17.99	0.79	0.50
Meaning	122.98	3	40.99	1.48	0.22
Accomplishment	53.79	3	17.93	0.80	0.50

ANOVA table 4.14 showing a significant difference between participants without siblings (single child), one sibling, two siblings, and three siblings in their character strengths and wellbeing. It shows that for the strength of appreciation of beauty and excellence, participants have a sum of squares of 3.07 and mean square of

1.02 with f of 1.76 and sig of 0.16 and df of 3. For bravery, the sum of squares is 0.38, and the mean square is 0.13 with an f of 0.18 and a sig of 0.91. For love, the sum of squares is 1.90, and the mean square is 0.63 with an F ratio of 1.08 and a sig of 0.36. Prudence has a mean square of 0.04 and a sum of square of 0.11 with an F value of 0.07 and a sig. of 0.98. For teamwork, 0.04 is the mean square, and the sum of square is 0.11 with an f value of 0.07 and sig. 0.98. Creativity has a mean square of 0.04 and a sum of square scores of 0.12 with an f value of 0.06 and sig. of 0.98. The sum of squares is 2.40, and the mean square for curiosity is 0.80 with an f of 0.99 and a sig. of 0.40. For fairness, 0.29 is the mean square, 0.87 is the sum of square, and f value 0.53 with sig. of 0.66 between groups. For forgiveness, 0.24 is the sum of squares is, and the mean square is 0.08 with df of 3, f value 0.13, and sig. of 0.94. The Sum of squares is 1.80, and 0.60 is the mean square for gratitude, f value is 1.01, and sig of 0.39. Honesty has a sum of square of 0.26 and means square of 0.09 with f value of 0.19 and sig. of 0.90. For the strength of hope, the mean square is 0.70, the sum of square is 2.10, with an f value of 1.17 and a sig. of 0.32. The Sum of squares for humor is 5.16, and a mean square is 1.72, and an f value is 1.88 with a sig of 0.14. Perseverance has a sum of square score of 1.71 and mean square scores of 0.57 with f value of 1.03 and sig. of 0.38. Judgment has a mean square of 1.06 and sum of square value of 3.17 with f of 1.44 and sig of 0.23. A mean square score of 0.36, the sum of square of 1.07, and f value of 0.57 with sig. of 0.63 is there for kindness. Leadership has a sum of square of 4.29 and mean square of 1.43 with f of 1.94 and sig. of 0.13. For the love of learning, participants have a sum of square scores of 1.68, mean square of 0.56, and f of 0.57, and sig. of 0.64. Humility has a sum of square of 4.35, a mean square of 1.45, and an f value of 1.93 with sig. of 0.13. For perspective, the sum of squares is 3.03, and a mean square is 1.01 with an f of 1.46 and a sig value of 0.23. Self-regulation has a sum of squares of 0.06, mean square of 0.02, and f of 0.04, and sig. of 0.99. Social intelligence has the sum of square values of 1.44, mean square of 0.48, and f of 0.89, and sig. of 0.45. The Sum of square for spirituality is 1.49 with mean square, f value, and sig. as 0.50, 0.79, and 0.50, respectively. For zest, groups have a sum of square scores of 3.68, mean square of 1.23 with f of 1.98, and sig. 0.12.

Positive emotion has a mean square of 63.13 and a sum of squares of 189.39 with f of 2.20 and sig of 0.09. The engagement has a mean square of 17.32 and sum of

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squares of 51.96, f of 0.71, and sig of 0.55. The mean square of 17.99 and the sum of squares for the relationship is 53.96 with f of 0.79 and sig. 0.50. Meaning has a sum of square is 122.98 and mean square of 40.99, f of 1.48 and sig. of 0.22. Similarly, accomplishment has a mean square of 17.93, and the sum of the square of 53.79, and f scores of 0.80 with sig. 0.50.

Studies show that some of the character strengths and personality traits are related (Noronha et al., 2018). Studies show that number of siblings has only a limited effect on their personality traits (Yucel, 2014). From the sig. Values were obtained between participants without siblings and with different numbers of siblings; there is no significant difference found between character strengths. Previous studies on subjective wellbeing found out that adolescents without siblings had a lower positive affect and a higher level of negative affect, but for self-esteem and related variables, there were no significant differences (Maheshwari & Jamal, 2015). In contrast, there is no significant difference between adolescents without siblings and with siblings on elements of wellbeing.

Hypotheses 1: There is no significant difference in character strength of adolescents before and after intervention

Table 4.15 Paired sample test table showing t, df and Significance value of character strength of experimental group before and after intervention

Character Strengths	M1	M2	t	df	Sig. (2-tailed)
Appreciation of beauty and excellence	4.17	4.32	-2.11	80	0.04
Bravery	3.44	3.55	-1.13	80	0.26
Love	3.87	3.97	-1.18	80	0.24
Prudence	3.10	3.41	-3.62	80	0.00
Teamwork	3.53	3.78	-2.93	80	0.00
Creativity	3.45	3.64	-1.94	80	0.06
Curiosity	3.57	3.58	-0.03	80	0.97
Fairness	3.59	3.87	-3.06	80	0.00
Forgiveness	3.83	4.08	-2.50	80	0.01
Gratitude	3.90	4.28	-4.00	80	0.00
Honesty	3.00	3.15	-1.86	80	0.07
Hope	3.81	3.88	-0.81	80	0.42
Humor	3.83	3.83	0.02	80	0.98
Perseverance	3.00	3.20	-2.37	80	0.02
Judgment	3.47	3.55	-0.92	80	0.36
Kindness	3.86	3.79	0.97	80	0.34
Leadership	2.71	2.97	-2.52	80	0.01
Love of Learning	3.60	3.60	-0.04	80	0.97
Humility	3.06	3.47	-3.66	80	0.00
Perspective	3.13	3.23	-1.19	80	0.24
self-regulation	3.11	3.21	-1.23	80	0.22
Social Intelligence	3.60	3.74	-1.59	80	0.12
Spirituality	4.05	4.16	-1.15	80	0.25
Zest	3.71	3.95	-2.63	80	0.01

Table 4.15, showing the t value, df, and Sig value of character strength of the experimental group before and after the intervention. It shows that the df is 80. The t value of appreciation of beauty and excellence is -2.11 with a significance of 0.04. Bravery has a t value of -1.13 with a Sig of 0.26. Love has a t value of -1.18 and sig of 0.24. With Sig of 0.00, prudence has a t value of -3.62, and teamwork has a t value of -2.93. Creativity and curiosity have t values of -1.94 and -0.03, respectively, with Sig of

0.06 and 0.97. Fairness, forgiveness, and gratitude have a t score of -3.06, -2.50, and -4.00 with Sig of 0.00, 0.01, and 0.00. T value for honesty is -1.86, for hope, it is -0.81, and humor has a t value of 0.02, respectively, with Sig of 0.07, 0.42, and 0.98. Perseverance has a t value of -2.37 with a Sig of 0.02, and judgment has a t value of -0.92 with a Sig of 0.36. 0.97 is the t value for kindness with a sig of 0.34. Leadership, love of learning, humility, and perspective has t values of -2.52, -0.04, -3.66, and -1.19 with Sig of 0.01, 0.97, 0.00, and 0.24, respectively. Strengths such as self-regulation, social intelligence, spirituality and zest has t-values of -1.23, -1.59, -1.15 and -2.63 respectively with Sig of 0.22, 0.12, 0.25 and 0.01.

Studies show that character strengths can be fostered or developed (Lavy, 2020). We can help adolescents to nurture their strengths through character strength-based interventions. In this study, the Sig value shows that strengths such as appreciation of beauty and excellence (0.04), prudence (0.00), teamwork (0.00), fairness (0.00), forgiveness (0.01), gratitude (0.00), perseverance (0.02), leadership (0.01), humility (0.00) and zest (0.01) has a significant difference after intervention. while other strengths such as bravery (0.26), love (0.24), creativity (0.06), curiosity (0.97), honesty (0.07), hope (0.42), humor (0.98), judgment (0.36), kindness (0.34), love of learning (0.97), perspective (0.24), self-regulation (0.22), social intelligence (0.12) and spirituality (0.25) doesn't have any significant difference after intervention at level of 0.05.

Hypotheses 2: There is no significant difference in the wellbeing of adolescents before and after the intervention.

Table 4.16 Paired sample test table showing t, df, and Significance value of PERMA of experimental group before and after intervention

PERMA	M1	M2	t	Df	Sig. (2-tailed)
Positive Emotions	20.98	23.20	-4.49	80	0.00
Engagement	21.70	23.57	-2.62	80	0.01
Relationship	22.53	24.20	-3.06	80	0.00
Meaning	20.59	23.40	-4.82	80	0.00
Accomplishment	20.36	22.32	-4.54	80	0.00

Table 4.16 shows that elements of wellbeing such as positive emotions, engagement, relationship, meaning, and accomplishment have t values of -4.49, -2.62, -3.06, -4.82 and -4.54 and df of 80, with sig of 0.01 for engagement and 0.00 for positive emotions, relationship, meaning, and accomplishment.

The significance values of 0.00, 0.01, 0.00, 0.00, and 0.00 at 0.05 sig level respectively for positive emotions, engagement, relationship, meaning, and accomplishment show that there is a significant difference in the wellbeing of adolescents after the intervention.

According to Peterson and Seligman, practicing character strengths can enhance wellbeing and mental health (Peterson & Seligman, 2004). Similarly, a positive psychology-based intervention program called "Strength Gym" increased young people's life satisfaction and well-being (Proctor et al., 2011). From the mean scores during pretest and posttest, it is evident that the experimental group has a comparatively higher mean score during posttest than pretest. Thus, we can conclude that the PERMA-based character strength intervention has a significant impact on the wellbeing of adolescents.

Hypotheses 3: There is no significant difference between the experimental group and the control group on post-test scores.

Table 4.17 Independent sample test showing t, df, and significance value of experimental group and control group on Post-test scores

	Mean Difference	Std. Error Difference	t-test for Equality of Means		
			T	df	Sig. (2-tailed)
Character Strength					
Appreciation of beauty and excellence	0.59	0.14	4.27	152	0.00
Bravery	0.03	0.13	0.20	152	0.84
Love	0.08	0.13	0.60	152	0.55
Prudence	0.09	0.12	0.77	152	0.44
Teamwork	0.44	0.13	3.51	152	0.00
Creativity	0.28	0.14	1.97	152	0.05
Curiosity	0.30	0.15	2.04	152	0.04
Fairness	0.57	0.13	4.56	152	0.00
Forgiveness	0.66	0.13	5.01	152	0.00
Gratitude	0.21	0.11	1.92	152	0.06
Honesty	0.20	0.13	1.48	152	0.14
Hope	0.19	0.12	1.53	152	0.13
Humor	0.19	0.17	1.11	152	0.27
Perseverance	0.32	0.13	2.45	152	0.02
Judgment	0.31	0.14	2.22	152	0.03
Kindness	0.21	0.13	1.67	152	0.10
Leadership	0.20	0.15	1.37	152	0.17
Love of Learning	0.54	0.15	3.52	152	0.00
Humility	0.11	0.13	0.84	152	0.40
Perspective	0.31	0.13	2.43	152	0.02
self-regulation	0.30	0.10	2.99	152	0.00
Social Intelligence	0.06	0.11	0.58	152	0.56
Spirituality	0.17	0.11	1.49	152	0.14
Zest	0.52	0.13	3.99	152	0.00
PERMA					
Positive Emotions	3.36	0.82	4.09	152	0.00
Engagement	3.75	0.85	4.41	152	0.00
Relationship	2.35	0.82	2.85	152	0.01
Meaning	4.04	0.84	4.82	152	0.00
Accomplishment	3.13	0.76	4.12	152	0.00

Table 4.17 shows that the strengths such as appreciation of beauty and excellence, bravery, love, prudence, teamwork, creativity and curiosity has a mean difference of 0.59, 0.03, 0.08, 0.09, 0.44, 0.28, 0.30 and standard error difference of 0.14, 0.13, 0.13, 0.12, 0.13, 0.14 and 0.15 respectively. The t values are 4.27, 0.20, 0.60, 0.77, 3.51, 1.97 and 2.04 with Sig of 0.00, 0.84, 0.55, 0.44, 0.00, 0.05 and 0.04 respectively for appreciation of beauty and excellence, bravery, love, prudence, teamwork, creativity and curiosity. Fairness, forgiveness, gratitude, honesty, hope, humor, perseverance and judgment has a mean scores of 0.57, 0.66, 0.21, 0.20, 0.19, 0.19, 0.32 and 0.31 with standard error difference of 0.13, 0.13, 0.11, 0.13, 0.12, 0.17, 0.13 and 0.14. The t values are 2.04, 4.56, 5.01, 1.92, 1.48, 1.53, 1.11, 2.45 and 2.22 with Sig. of 0.00, 0.00, 0.06, 0.14, 0.13, 0.27, 0.02 and 0.03 respectively for Fairness, forgiveness, gratitude, honesty, hope, humor, perseverance and judgment. The strengths such as kindness, leadership, love of learning, humility, perspective, self-regulation, social intelligence, spirituality and zest has a mean difference of 0.21, 0.20, 0.54, 0.11, 0.31, 0.30, 0.06, 0.17 and 0.52 with standard error difference of 0.13, 0.15, 0.15, 0.13, 0.13, 0.10, 0.11, 0.11 and 0.13 respectively. The t values of 1.67, 1.37, 3.52, 0.84, 2.43, 2.99, 0.58, 1.49 and 3.99 with Sig. of 0.10, 0.17, 0.00, 0.40, 0.02, 0.00, 0.56, 0.14 and 0.00 respectively for strengths such as kindness, leadership, love of learning, humility, perspective, self-regulation, social intelligence, spirituality and zest.

The elements of wellbeing such as positive emotion, engagement, relationship, meaning, and accomplishment have a mean difference of 3.36, 3.75, 2.35, 4.04, and 3.13 with a standard error difference of 4.09, 4.41, 2.85, 4.82, and 4.12, respectively. The t values are 4.09, 4.41, 2.85, 4.82, and 4.12 with Sig. of 0.00, 0.00, 0.01, 0.00, and 0.00 respectively for positive emotion, engagement, relationship, meaning, and accomplishment.

Based on the Sig value at the 0.05 level, strengths such as appreciation of beauty and excellence, teamwork, creativity, curiosity, fairness, forgiveness, perseverance, judgment, love of learning, perspective, self-regulation, and zest have a significant difference between experimental and control group during posttest. All the elements of wellbeing have a significant difference at 0.05 level. The strengths such as bravery, love, prudence, gratitude, honesty, hope, humor, kindness, leadership, perspective,

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social intelligence, and spirituality do not have any significant differences between experimental and control groups on the posttest.

Table 4.18 Descriptive statistics showing the number of samples, mean, standard deviation, and standard error mean of experimental group and control group on Post-test.

Variables	Group	N	Mean	SD
Appreciation of beauty and excellence	Experimental Group	81	4.32	0.70
	Control Group	73	3.74	1.00
Bravery	Experimental Group	81	3.55	0.76
	Control Group	73	3.53	0.85
Love	Experimental Group	81	3.97	0.75
	Control Group	73	3.89	0.87
Prudence	Experimental Group	81	3.41	0.61
	Control Group	73	3.32	0.85
Teamwork	Experimental Group	81	3.78	0.72
	Control Group	73	3.34	0.84
Creativity	Experimental Group	81	3.64	0.82
	Control Group	73	3.36	0.92
Curiosity	Experimental Group	81	3.58	0.84
	Control Group	73	3.28	0.98
Fairness	Experimental Group	81	3.87	0.71
	Control Group	73	3.30	0.84
Forgiveness	Experimental Group	81	4.08	0.71
	Control Group	73	3.43	0.92
Gratitude	Experimental Group	81	4.28	0.69
	Control Group	73	4.07	0.68
Honesty	Experimental Group	81	3.15	0.66
	Control Group	73	2.95	0.98
Hope	Experimental Group	81	3.88	0.71
	Control Group	73	3.70	0.81
Humor	Experimental Group	81	3.83	0.99
	Control Group	73	3.64	1.10
Perseverance	Experimental Group	81	3.20	0.77
	Control Group	73	2.89	0.84
Judgment	Experimental Group	81	3.55	0.84
	Control Group	73	3.24	0.89
Kindness	Experimental Group	81	3.79	0.69
	Control Group	73	3.58	0.90
Leadership	Experimental Group	81	2.97	0.82
	Control Group	73	2.77	1.00
Love of Learning	Experimental Group	81	3.60	0.93
	Control Group	73	3.06	0.96
Humility	Experimental Group	81	3.47	0.77
	Control Group	73	3.36	0.86
Perspective	Experimental Group	81	3.23	0.64
	Control Group	73	2.93	0.92
self-regulation	Experimental Group	81	3.21	0.61
	Control Group	73	2.91	0.65

	Group	N	Mean	SD
Social Intelligence	Experimental Group	81	3.74	0.63
	Control Group	73	3.68	0.72
Spirituality	Experimental Group	81	4.16	0.72
	Control Group	73	3.99	0.71
Zest	Experimental Group	81	3.95	0.71
	Control Group	73	3.43	0.91
Positive Emotion	Experimental Group	81	23.20	4.69
	Control Group	73	19.84	5.51
Engagement	Experimental Group	81	23.57	5.24
	Control Group	73	19.82	5.28
Relationship	Experimental Group	81	24.20	4.71
	Control Group	73	21.85	5.52
Meaning	Experimental Group	81	23.40	4.43
	Control Group	73	19.36	5.91
Accomplishment	Experimental Group	81	22.32	4.25
	Control Group	73	19.19	5.18

From table 4.17, we can understand that at 0.05 level of significance, strengths such as bravery, love, prudence, gratitude, honesty, hope, humor, kindness, leadership, perspective, social intelligence, and spirituality do not have any significant difference between experimental and control group on the posttest. Strengths such as appreciation of beauty and excellence, teamwork, creativity, curiosity, fairness, forgiveness, perseverance, judgment, love of learning, perspective, self-regulation, and zest have a significant difference between experimental and control groups during the posttest.

Table 4.18 shows that mean of the experimental group for appreciation of beauty and excellence is 4.32, while the control group has a mean score of 3.74. The experimental group has a mean score of 3.78, and the control group has a mean score of 3.34 for teamwork on the posttest. For creativity, the experimental group has a mean score of 3.64, and the control group has a mean score of 3.36. The mean score of the experimental group on curiosity is 3.58, while the control group has a score of 3.28. The experimental group and control group has mean scores of 3.87 and 3.30, respectively, for fairness and 4.08 and 3.43 for forgiveness on the posttest. For perseverance, the control group's mean score on the post-test is 3.20, while the control group has a mean score of 2.89. For the strength of judgment, the mean score is 3.55 for the experimental group and 3.24 for the control group. Love of learning has a mean score of 3.60 for the experimental group and 3.06 for the control group.

Similarly, for perspective, the mean score of the experimental group is 3.23, and the control group is 2.93. Self-regulation has a mean score of 3.21 for the experimental group and 2.91 for the control group. The mean score of the experimental group for the zest is 3.95, while the control group has a mean score of 3.43 for the control group on the posttest.

All the elements of wellbeing have a significant difference at 0.05 level. For positive emotion, the experimental group has a comparatively higher mean score of 23.20 than the control group, with a mean score of 19.84. For engagement, the mean score of the experimental group on the post-test is 23.57, and the control group has a mean score of 19.82. The experimental group has a mean score of 24.57 for the relationship, and the control group has a mean score of 21.85 for the relationship on the posttest. The experimental group has a comparatively higher mean score of 23.40 for meaning than the control group, with a mean score of 19.36. For accomplishment, the mean score of the experimental group is 22.32, and the mean score of the control group is 19.19, respectively.

Thus we can understand that the experimental group has a comparatively higher mean score than the control group on strengths such as appreciation of beauty and excellence, teamwork, creativity, curiosity, fairness, forgiveness, perseverance, judgment, love of learning, perspective, self-regulation, and zest as well as for all elements of wellbeing such as positive emotion, engagement, relationship and meaning on the posttest.

CHAPTER 5
SUMMARY, CONCLUSION, RECOMMENDATIONS, SUGGESTIONS, AND LIMITATIONS

The data is analyzed in the previous chapter; this chapter summarizes the findings obtained from the data analyzed, then the findings will be concluded, further recommendations for the study will be discussed, and the chapter ends with suggestions for further research and limitation of the study.

5.1 Summary and Conclusions

Based on objectives and hypotheses, certain findings and conclusions are drawn. Those conclusions and a summary of findings based on each objective and hypothesis are discussed below.

Objective 1: To study the character strength and wellbeing of adolescents.

The mean order of character strength of participants indicates that they have a higher mean score on strengths such as spirituality, appreciation of beauty and excellence, gratitude, love, hope, forgiveness, and kindness. The mean lesser strengths of participants include prudence, humility, perspective, perseverance, honesty, self-regulation, and leadership. Adolescents have a higher mean score on spirituality and a lesser mean score on leadership. They have the highest mean score on relationship and a lesser mean score on accomplishment.

The experimental group on the pre-test has higher mean scores on strengths such as appreciation of beauty and excellence, spirituality, gratitude, love, kindness, and forgiveness. Strengths such as perspective, self-regulation, prudence, humility, honesty, perseverance, and leadership have lesser mean scores. Thus, the mean signature strength of the experimental group includes the appreciation of beauty and excellence, spirituality, gratitude, love, kindness, and forgiveness. The mean lesser strengths include perspective, self-regulation, prudence, humility, honesty, perseverance, and leadership.

Findings show that the control group in the pre-test has to mean signature strengths such as spirituality, gratitude, love, appreciation of beauty and excellence, hope, forgiveness, and humor with mean lesser strengths such as prudence, humility,

perseverance, honesty, perspective, self-regulation, and leadership. Group has the highest mean score for spirituality, and the lowest strength of the group is leadership. The group also has the highest mean score for a relationship, which indicates that the group scored more on the dimension of the relationship of wellbeing and a lower score on accomplishment. Similar findings are also obtained on dimensions of the wellbeing of the control group on the pre-test. There was no significant difference between the experimental and control group on strengths and elements of wellbeing.

Objective 2: To understand the difference in character strength and wellbeing on demographic variables.

Character strength and wellbeing based on gender (male and female)

Results depicted that the signature strength of male participants includes strengths such as spirituality, appreciation of beauty and excellence, gratitude, love, hope, forgiveness, humor, and lesser strengths include prudence, perspective, self-regulation, humility, perseverance, honesty, and leadership, respectively. The top character strength of a group is spirituality, and strength is leadership. Similarly, the top most strengths of female participants as a group include the appreciation of beauty and excellence, spirituality, gratitude, love, hope, kindness, zest, and the lesser strength of the group, including honesty, humility, prudence, perseverance perspective, self-regulation, and leadership. The topmost strength is spirituality, and the least strength is leadership. Except for strengths such as perspective and self-regulation, there is no significant difference between the character strength of male and female participants as a group.

Male participants scored highest on relationship and lowest on accomplishment. Similarly, female participants also scored highest on relationship and lowest on accomplishment. Except for relationship and positive emotions were, female participants scored higher on both dimensions; there is no significant difference between elements such as engagement, meaning, and accomplishment.

Character strength and wellbeing based on the type of family (joint and nuclear family)

From the sig. Values obtained between joint family and nuclear family participants show that except for strengths such as love and prudence with sig of 0.04 and 0.03, there is no significant difference between character strengths. Adolescents belong to joint families with higher mean scores on strengths such as appreciation of beauty and excellence, spirituality, gratitude, hope, and love, and lowest strengths are prudence, perseverance, perspectives, honesty, self-regulation, humility, and leadership. The topmost strength of adolescents from joint families is the appreciation of beauty and excellence and spirituality, and the lowest is leadership. Similarly, the topmost strengths of adolescents from nuclear families include strengths such as spirituality, appreciation of beauty and excellence, love, gratitude, and forgiveness, and strengths that lie on the bottom, including humility, perspectives, honesty, prudence, and self-regulation, perseverance, and leadership. The highest mean score is for spirituality and appreciation of beauty and excellence, and the lowest is for leadership.

Adolescents from joint families have comparatively higher accomplishments and lower positive emotions than adolescents from a nuclear family. While adolescents from joint families have comparatively higher accomplishments and lesser positive emotions, adolescents from nuclear families have higher accomplishments and lower meaning dimensions.

Character strength and wellbeing based on religion (Hindu, Christian, Muslim)

From the sig. Values obtained between participants from different religions can understand that except for strengths such as curiosity, judgment, and love of learning, with sig of 0.02, 0.03, and 0.06, there is no significant difference between the character strengths of participants Hinduism, Christianity, and Muslim religion.

Adolescents belong to the Hindu religion's topmost strengths, including appreciating beauty, gratitude, humor, hope, and love. Moreover, the lesser strengths include perspectives, perseverance, self-regulation, humility, and leadership. The top character strengths of participants belong to the Christian religion: spirituality, appreciation of beauty and excellence, gratitude, love, and forgiveness, and the lesser strengths are perspectives, perseverance, self-regulation, honesty, and leadership. Adolescents belong to the Muslim religion with topmost strengths such as appreciation of beauty and excellence, love, spirituality, gratitude, humor, and the lowest strengths

such as curiosity, humility, perspectives, prudence, and leadership. For all participants from three groups of religion top, most strength is an appreciation of beauty and excellence, and the lowest or lesser strength is leadership.

It is clearly shown in the result of this study that Hindu, Christian, and Muslim adolescents have a higher score on the relationship dimension of wellbeing and a lower level of accomplishment. The mean wellbeing of participants belong to the Hindu religion on pre-test shows that the group has higher mean scores on relationship, followed by engagement, meaning, and positive emotions, and the lesser mean scores are for accomplishment. Participants' mean well-being belongs to the Christian religion on pre-test shows that the group has higher mean scores on relationship, followed by engagement, positive emotions, and meaning with a lesser mean score for accomplishment. The mean wellbeing of participants belong to the Muslim religion on pre-test shows that the group has higher mean scores on relationship, followed by positive emotions, engagement, and meaning, with a lesser mean score, is for accomplishment.

A significant difference is also found to be there for wellbeing elements such as engagement with a sig. of 0.03 and accomplishment with sig. of 0.02. Adolescents belonging to the Christian religion have comparatively higher engagement, and adolescents belonging to the Hindu religion have comparatively higher accomplishments than adolescents who belong to other religions.

Character strength and wellbeing based on birth order (firstborn, the second-born, third born)

Results demonstrated that the top character strength of firstborn is spirituality, appreciation of beauty and excellence, gratitude, hope, and forgiveness. The lower strengths or weaker strengths with lesser mean score includes humility, perspective, self-regulation, honesty, and leadership. The topmost strengths of second-born include the appreciation of beauty and excellence, spirituality, love, gratitude, humor, and kindness, and the lowest has humility, self-regulation, perspective, perseverance, and leadership. Strengths with the highest mean for character strengths of third-born include love, love of learning, curiosity, fairness, hope, and gratitude. The strengths such as teamwork, leadership, perspective, and perseverance are the lesser strength of the

group. Here, we can see that third-born has a bit variation in the mean order of highest and lesser strengths than firstborn and second-born, which may be due to the lesser number of third-born adolescents in the study.

Findings on PERMA elements of firstborn participants show that they have higher relationship elements following engagement, meaning, positive emotions, and a lower level of accomplishment. For second-born adolescents, the relationship has a higher mean score following engagement, positive emotions, accomplishment, and meaning. Third born have a comparatively higher mean score for relationships and then follow positive emotions, engagement, meaning, and accomplishment. Firstborn, second born, and third born adolescents have a comparatively higher level of relationship element of wellbeing. Similarly, firstborn and third-born have a lower level of accomplishment, while second-born have a lower level of meaning. From the sig. Values obtained between participants from belonging to different birth orders, it is found out that there is a significant difference in appreciation of beauty and excellence, forgiveness, humor, perseverance, kindness, spirituality, and meaning with sig of 0.05, 0.04, 0.04, 0.00, 0.03, 0.02 and 0.02 respectively. Except for these strengths and elements of wellbeing, there is no significant difference found between character strengths and elements of the wellbeing of participants based on their birth order.

Character strength and wellbeing based on number of siblings (single child, one sibling, two siblings, three siblings)

The result revealed that the mean order of the top character strength of a single child is the appreciation of beauty and excellence, gratitude, spirituality, hope, kindness, love of learning, fairness, and the lowest character strengths, including perseverance, prudence, and self-regulation honesty, perspective, humility, and leadership. The topmost strengths of adolescents with one sibling include spirituality, appreciation of beauty and excellence, love, gratitude, hope, humor, and kindness, and mean lowest strengths, including humility, perspective, prudence, honesty, self-regulation, perseverance, and leadership. Participants' topmost character strength with two siblings is the appreciation of beauty and excellence, love, spirituality, forgiveness, gratitude, judgment, and kindness. The lowermost strengths include prudence, humility, perseverance, honesty, self-regulation, leadership, and perspective. Participants'

character strengths with three siblings that lie on the top include gratitude, love, humor, teamwork, zest, kindness, and spirituality. The lowest strengths include curiosity, honesty, perseverance, prudence, judgment, self-regulation, and humility.

The highest scored dimension of wellbeing is the relationship, and the lowest score is on positive emotion for a single child. Engagement, meaning, and accomplishment lie in between. Participants with one sibling have a comparatively highest score on the dimension of the relationship of well-being. Then engagement, positive emotion, and meaning are in the second, third, and fourth dimensions. Accomplishment is having comparatively lower mean scores. Participants with two siblings have a comparatively higher relationship and then engagement, positive emotion, and accomplishment. Meaning is that the dimension comparatively scored lesser. Participants with three siblings scored comparatively high on the wellbeing dimension of relationship and then positive emotion, meaning, and engagement. The lowest scored dimension is an accomplishment.

From the sig. Values were obtained between participants without siblings and with different numbers of siblings; there is no significant difference in character strengths and elements of wellbeing.

Objective 3: To develop a PERMA-based character strength intervention program.

Seligman (2004) came up with three factors that needed to be considered while developing an intervention. Enabling factors is encouraging the environment, which is provided during intervention. Adolescents are encouraged throughout the program to focus on developing their strengths. As a societal institution, it has been conducted in school. Their classmates, peers, and family are involved throughout the program. Its deliberated intervention, as the intervention is conducted by the researcher who has prior experience in psychology. Rather than focusing only on class-based activities, home-based activities are also included, making them more effective.

Lavy (2020) stated that Character strength interventions include four elements of learning, theoretical knowledge, and recognition of strengths, action, and reflection. These four elements are considered while developing an intervention to learn character strengths. Before starting activities, theoretical knowledge about each strength is given.

Detailed explanations about each strength are given. Then their strengths are identified and given with cards that have an order of strengths of each adolescent. The card has all 24 strengths, which are arranged from signature strengths to lesser strengths based on their scores from the character strength inventory. Then they were taught to recognize the strengths from films and their daily life and ensured that they understood all the strengths and were able to identify them. Then the activities are conducted to enable them to act upon their strengths and build those strengths. Various activities such as recognizing the strengths of friends, giving feedback, helping family, helping someone, writing gratitude letters, counting blessings, guided visualization, exhibiting talent, sharing stories, role-play, etc., are conducted. These activities allowed them to act on their strengths and to practice them to have a better life. Then they are asked to reflect or give introspective reports about how they felt after each activity, which enabled them to reflect on their strength use and rely on how using strengths made them feel, which will encourage them to practice it more.

Objective 4: To study the effectiveness of PERMA-based intervention on character strength and wellbeing of adolescents.

Hypotheses: There is no significant difference in the character strength of adolescents before and after the intervention.

Results demonstrated a significant difference in character strengths such as appreciation of beauty and excellence, prudence, teamwork, fairness, forgiveness, gratitude, perseverance, leadership, humility, and zest after the intervention. In contrast, there is no significant difference in strengths such as bravery, love, creativity, curiosity, honesty, hope, humor, judgment, and kindness, love of learning, perspective, self-regulation, social intelligence, and spirituality after intervention at a level of 0.05.

Hypotheses: There is no significant difference in the wellbeing of adolescents before and after the intervention.

There is a significant difference in PERMA elements of wellbeing, such as positive emotions, engagement, relationship, meaning, and accomplishment of adolescents after the intervention.

Objective 5: To compare the change in character strength and wellbeing through the experimental and control group.

Hypotheses: There is no significant difference between the experimental group and the control group on post-test scores.

Based on the Sig value at the 0.05 level, strengths such as appreciation of beauty and excellence, teamwork, creativity, curiosity, fairness, forgiveness, perseverance, judgment, love of learning, perspective, self-regulation, and zest have a significant difference between experimental and control group during post-test. All the elements of wellbeing have a significant difference at 0.05 level. The strengths such as bravery, love, prudence, gratitude, honesty, hope, humor, kindness, leadership, perspective, social intelligence, and spirituality do not significantly differ between experimental and control groups on post-test.

Further analysis shows that the experimental group has a comparatively higher mean score than the control group on strengths such as appreciation of beauty and excellence, teamwork, creativity, curiosity, fairness, forgiveness, perseverance, judgment, love of learning, perspective, self-regulation, and zest as well as for all elements of wellbeing such as positive emotion, engagement, relationship and meaning on post-test.

Objective 6: To study the effectiveness of PERMA-based intervention in the Indian context.

This study is conducted in India. Findings from paired sample t-test of the experimental group on pre-test and post-test show a significant difference in character strengths such as appreciation of beauty and excellence, prudence, teamwork, fairness, forgiveness, gratitude, perseverance, leadership, humility, and zest. Moreover, the mean score of those strengths shows that those strengths have comparatively higher mean scores during the post-test than mean scores on the pre-test. Similarly, there is a significant difference in all elements of the experimental group's well-being before and after the intervention, and it shows that the mean score on the post-test is comparatively higher than the mean score on the pre-test.

Analysis was done using an independent sample t-test to find out a significant difference between experimental and control groups on post-test shows a significant difference in some of the character strengths and elements of well-being on post-test. The results depicted a significant difference in strengths such as appreciation of beauty

and excellence, teamwork, creativity, curiosity, fairness, forgiveness, perseverance, judgment, love of learning, perspective, self-regulation, and zest. Similarly, there is a significant difference in all wellbeing elements such as Positive Emotions, engagement, relationship, meaning, and accomplishment between the experimental group and the control group on the post-test.

Results also demonstrated that the experimental group has comparatively higher mean scores on all the strengths, which has significant differences in post-test such as appreciation of beauty and excellence, teamwork, creativity, curiosity, fairness, forgiveness, perseverance, judgment, love learning, perspective, self-regulation, and zest. Similarly, the experimental group has comparatively higher mean scores on all the PERMA elements on the post-test. Thus, this PERMA-based character strength intervention effectively develops specific character strengths and develops the well-being of adolescents in the Indian context.

5.2 Conclusion of Research Hypotheses

Si. No	Hypotheses	Significant / Insignificant
1	There is no significant difference in the character strength of adolescents before and after the intervention.	• There is a significant difference in character strengths such as appreciation of beauty and excellence, prudence, teamwork, fairness, forgiveness, gratitude, perseverance, leadership, humility, and zest after the intervention. • There is no significant difference in strengths such as bravery, love, creativity, curiosity, honesty, hope, humor, judgment, kindness, love of learning, perspective, self-regulation, social intelligence, and spirituality
2	There is no significant difference in the wellbeing of adolescents before and after the intervention.	• There is a significant difference in the wellbeing of adolescents before and after intervention
3	There is no significant difference between the experimental group and the control group on post-test scores.	• Strengths such as appreciation of beauty and excellence, teamwork, creativity, curiosity, fairness, forgiveness, perseverance, judgment, love of learning, perspective, self-regulation and zest, and all well-being have significant differences between experimental and control on post-test scores. • Strengths such as bravery, love, prudence, gratitude, honesty, hope, humor, kindness, leadership, perspective, social intelligence, and spirituality do not have any significant differences between experimental and control groups on post-test scores.

5.3 Recommendations and Implications

From the conclusion of this study, we can understand that this intervention effectively develops well-being and particular character strengths in adolescents. Thus, specific recommendations are put forth for teachers, school management and administrators, policymakers, and government officials.

Fostering adolescents' character strength and well-being help build a better generation and a better society itself. Using PERMA-based character strength intervention enhances adolescents' character strengths and allows them to attain increased well-being; thus, it is essential to teach the strengths and nurture strengths of adolescents. It is recommended that it is essential to implement this intervention in all schools irrespective of grade or syllabus. It should be part of the curriculum, and it should be implemented in the whole school. Irrespective of the affiliation of schools to develop wellbeing and better life in children and adolescents, it is necessary to implement similar interventions. Character strength interventions are essential to enhance life satisfaction and wellbeing in adolescents; thus, it is necessary to be part of the school curriculum (Proctor et al., 2011). Strength-based coaching and intervention programs are considered preventive measures and promote mental health and wellbeing (Madden et al., 2011). Thus it is recommended to implement strength-based programs in school. Rather than focusing on curriculum, most schools fail to focus on children's mental health; making it part of the curriculum will help create a better school environment and have a better life ahead. Thus, it has recommended implementing PERMA-based character strength intervention in schools.

5.4 Limitation and Suggestions for Future Research

In this study, the researcher used the purposive sampling method, where the intervention program is conducted in classes allowed by the school. Random sampling methods will be appropriate for giving an equal chance for samples to get selected. Thus, for further studies, it will be better to assign participants randomly. Another limitation of this study is that the samples are selected only from the southern part of Kerala, thus further researchers should consider all the states of India, and the samples should be chosen from all states so that we can generalize the effectiveness of the intervention program. In this study, participants are selected from CBSE (Central Board

of Secondary Education) schools; different schools such as public, special education schools, and private schools should be considered. This intervention took one month to finish in a school; long-term interventions are much more effective, making it part of the curriculum better for long-term effects.

Further researchers should develop long-term interventions which are part of the curriculum. In this study, adolescents who belong to 8th grade underwent intervention programs. Future studies should consider adolescents from three groups such as young adolescence, middle adolescence, and late adolescence. Comparative studies on the effectiveness of interventions with adolescents of different age groups can also be conducted. Another limitation of this study is that only two classes are involved in the research. One is a control group, and one is an experimental group; making it part of the curriculum, involving whole schools will make it more effective.

Further researchers should focus on the whole school. Assessment in this study is limited to participants; future researchers should assess parents and teachers to understand the effectiveness of intervention programs. Further training for teachers and parents on character strengths and wellbeing will help adolescents have a nurturing environment. This study examines the effectiveness of the intervention on adolescents; further interventions can be developed and tested on people belong to different age groups and in other settings such as religious institutions and organizations.

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APPENDICES

DEMOGRAPHIC INFORMATION

Please do kindly fill with your details:					
1.	**Name:**				
2.	**Date of Birth:**	**D/M/Y**			
3.	**Age:**				
4	**Religion:**				
5.	**Type of Family:**	**Joint**	**Nuclear**		
6.	**Gender:**	**Male**	**Female**		**Others**
7.	**Location:**	**Urban**	**Rural**	**Semi-Urban**	**Semi-Rural**
8.	**Birth Order:**	**1st Child**	**2nd child**	**3rd child** **4th child**	**5th child**
9.	**Number of Siblings:**				
10.	**Grade/ Class:**				
11.	**School:**				
12.	**Place:**				

PERMA-PROFILER by Butler and Kern

Dear participants, read each question carefully and mark your responses in the appropriate box using a tick mark (√) on a 0 to 10 scale. Mark on the responses which you feel it's appropriate for you.

	Questions	Responses										
		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
		Never										**Always**
1	How much of the time do you feel you are making progress towards accomplishing your goals?											
2	How often do you become absorbed in what you are doing?											
3	In general, how often do you feel joyful?											
4	In general, how often do you feel anxious?											
5	How often do you achieve the important goals you have set for yourself?											
		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
		Terrible										**Excellent**

		0	1	2	3	4	5	6	7	8	9	10
6	In general, how would you say your health is?											
		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
		Not at all										**Completely**
7	In general, to what extent do you lead a purposeful and meaningful life?											
8	To what extent do you receive help and support from others when you need it?											
9	In general, to what extent do you feel that what you do in your life is valuable and worthwhile?											
10	In general, to what extent do you feel excited and interested in things?											
11	How lonely do you feel in your daily life?											

		0	1	2	3	4	5	6	7	8	9	10
		Not at all										**Completely**
12	How satisfied are you with your current physical health?											
		0	1	2	3	4	5	6	7	8	9	10
		Never										Always
13	In general, how often do you feel positive?											
14	In general, how often do you feel angry?											
15	How often are you able to handle your responsibilities?											
16	In general, how often do you feel sad?											
17	How often do you lose track of time while doing something you enjoy?											
		0	1	2	3	4	5	6	7	8	9	10
		Terrible										Excellent

18	Compared to others of your same age and sex, how is your health?											
		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
		Not at all										Completely
19	To what extent do you feel loved?											
20	To what extent do you generally feel you have a sense of direction in your life?											
21	How satisfied are you with your personal relationships?											
22	In general, to what extent do you feel contented?											
		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
		Not at all										Completely
23	Taking all things together, how happy would you say you are?											

VIA Inventory for Youth- 96

Values in action inventory for youth, which is used in this study is freely available on the VIA Institute of Character website www.viacharacter.org.

The researcher used this inventory with the permission of the VIA Institute. Guidelines are followed and permission is obtained. Thus researchers follow the instructions on the site to obtain questionnaires and scoring keys.