

Emotional Intelligence, Self-Esteem, and Resilience as Predictors of Satisfaction with Life: A Study on University Students in Kolkata

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Abstract

The present study examined if Emotional Intelligence (EI), Resilience, and Self-Esteem Predicted Life Satisfaction in University Students in Kolkata. We computed correlations between the study variables, then, we compared the differences between men and women. Finally, a simultaneous multiple regression was performed. The sample was composed of 118 university students (42 were men and 76 were women), whose age ranged from 20 to 25 years. The instruments used were the Emotional Intelligence Scale by Dr. Arun Kumar Singh & Dr. Shruti Narain, the Wagnild and Young Resilience Scale (ER-25), the Rosenberg Self-Esteem Scale (RSES), and the Diener Satisfaction with Life Scale (SWLS). The results indicated that EI, self-esteem, and resilience correlated significantly and directly with satisfaction with life. Regarding sex differences, it was found that there are no differences in emotional intelligence, self-esteem, resilience and satisfaction with life between men and women university students. The results showed that 34% of variance in life satisfaction is explained by these predictors. The variable that best predicted satisfaction with life was resilience.

1. Introduction:

Over the past few years, the importance of psychological traits like emotional intelligence, self-esteem, and resilience has come to be acknowledged in the prediction of general life satisfaction, particularly among university students who are trying to cope with the intricacies of academic and personal life. Kolkata, a cosmopolitan city with a rich cultural heritage, boasts many educational institutions, where students tend to experience a plethora of pressures and demands that can affect their mental health. This dissertation attempts to examine the complex interactions between emotional intelligence, self-esteem, and resilience, and how these variables cumulatively shape life satisfaction among university students in Kolkata. Understanding these dynamics, the study aims to shed light on the significance of these psychological characteristics in enhancing positive life outcomes and improving the overall quality of life among students. Based on a thorough examination, this research focuses on accentuate the role of emotional intelligence, self-esteem, and resilience, which serve as better indicators for predicting life satisfaction in educational institutions in Kolkata.

Emotional Intelligence

In 1990, two psychologists, *Peter Salovey* and *John Mayer*, coined the term *emotional intelligence* (sometimes called EI). It refers to the ability to recognize and deal with one's own feelings and the feelings of others. *Daniel Goleman* (1995, 1998, 2001), the psychologist and science writer who popularized the

concept, expanded it to include such qualities as optimism, conscientiousness, motivation, empathy, and social competence. Emotional intelligence is no more than modestly related and sometimes unrelated to IQ and academic achievement. Among school age children, adolescents, and adults, it is positively associated with self-esteem, empathy, prosocial behaviour, cooperation, leadership skills, and life satisfaction and negatively related to drug and alcohol use, dependency, depression, and aggressive behaviour (*Brackett, Mayer, & Warner, 2004; Mavroveli et al., 2007, 2009; Petrides et al., 2006*).

Emotional intelligence (EI) has started to get attention due to its role in career development and personal growth, especially in relation to university students. It allows learners to manage stress, anxiety, and other relationships better, leading to improved performance. Higher EI helps to better understand and manage one's emotions as well as empathize with others, which fosters friendships and interactions with faculty, peers, and other students. EI also enables students to be more resilient when dealing with challenges, students will be able to cope and have a positive outlook on well-being while facing obstacles to maintain a strong hill toward optimal wellness. This also enhances conflict resolution skills as students with higher EI can understand and empathize with the emotions of others, helping negotiate and mediate different university scenarios. Furthermore, EI is important in the workforce; students with emotionally intelligent have better career problem-solving, therefore becoming more competitive in the job market. It's notable that high emotional intelligence enhances mental health, supporting well-being by enabling students to control their emotions, leading to greater satisfaction with life. On the whole, emotional intelligence helps to achieve success academically, cultivate healthy relationships, build resilience, enjoy a satisfying life, hence it becomes indispensable for university students.

Self-Esteem

Self-esteem is the self-evaluative part of the self-concept, the judgements we make about our own worth and the feelings associated with those judgements. From a neo-Piagetian perspective, self-esteem is based on one's growing cognitive ability to describe and define themselves. *Carl Rogers (1959)* links self-esteem to the congruence between a person's self-image and their ideal self, where alignment leads to self-actualization. It originates early and its structure becomes increasingly elaborate with age.

Self-esteem is a very crucial part of shaping a person's overall well-being and quality of life. For students, particularly those attending university, self-esteem is the degree to which students feel satisfied with themselves and feel valuable and worthy of respect. Their self-esteem can influence their academic achievement, relationships, and myriad social experiences throughout university. A student who possesses healthy self-esteem will ask for help when they need it, partake in educational and social activities, and learn and apply effective coping strategies that contribute to their entire life satisfaction and quality of life. Oppositely, poor self-esteem can lead to feelings of worthlessness, inadequacy, and anxiety that may eventually lean toward depression. Feelings of failure can inhibit students from flourishing academically, and compromising the quality of relationships with peers. Self-esteem ranks among the most important aspects of self-development because evaluations of our own competencies affect emotional experiences, future behaviour, and long-term psychological adjustment.

Resilience

The term resilience derives from the Latin verb *resilire* which means to rebound or "leap back." Resilience – the ability to adapt effectively in the face of threats to development – is receiving increasing attention as investigators look for ways to protect young people from the damaging effects of stressful life conditions. This interest has been inspired by several long-term studies on the relationship of life stressors in childhood to competence and adjustment in adolescence and adulthood (*Fergusson & Horwood, 2003*;

Masten et al., 1995; Werner & Smith, 2001). Resilience more likely exists on a continuum that may be present to differing degrees across multiple domains of life (*Pietrzak & Southwick, 2011*).

For a student at university, resilience is arguably one of the most important traits to have since it equips the student face any challenges that may arise during his or her academic life. It lets people recover from an obstacle, cope with a stressful situation, and keep hope alive. Factors like social relationships and academics can affect one's mental well-being during university life. The presence of strong resilience allows students to grapple with these challenges in a constructive manner, which cultivates their problem-solving abilities alongside emotional control. Such flexibility not only boosts one's capability to deal with stress, but also enhances overall life satisfaction, helping them perform well in different areas of life, including their education. In the end, resilience serves as a protective shield against the dangers of anxiety and depression, fostering a healthier perspective on life and a more satisfying university experience.

Satisfaction with Life

Life satisfaction is one of the most important elements of subjective well-being. It can be defined as an assessment of the overall domains and moments of one's own life. This assessment is subjective for each individual. It reflects a person's level of overall happiness with reference to several aspects of life (*Diener, 1984*). Life satisfaction is one of the main well-being indicators (*Karatas et al., 2021*) for presence of meaning in life.

Life satisfaction is a vital component of general well-being, especially for university students undergoing a period of personal and professional growth. A high level of life satisfaction is associated with better mental health, emotional stability, and academic achievement, generating a positive feedback mechanism that reinforces students' experiences. If students are satisfied with their lives, they tend to be more motivated, engaged, and productive, and this enhances better learning achievements and social connections. It also enhances resilience against stress and adversity and promotes proactive coping with challenges. Life satisfaction also leads to purpose and fulfilment and enables students to have a better vision for their goals and aspirations. By developing satisfaction with life, pupils not only enhance their present wellbeing but also develop a solid groundwork for their success and happiness later in life within both personal and professional contexts.

Emotional intelligence, self-esteem and resilience are intimately related variables that have a considerable influence on subjective well-being, in particular, in university students. Emotional Intelligence allows you understand, manage and express their emotions well and this makes you have Good Relationship and Less conflicts, a path to Happiness by and large. This way, when we raise students' self-esteem, we also raise their self-worth, and when a student has a good sense of self-worth, they can then set attainable goals and work towards them -and that is tied so closely to a feeling of accomplishment and satisfaction. Resilience instills in students the ability to recover from setbacks and to face challenges in a manner that allows them to continue to be optimistic and engaged when times are tough. Together, these qualities create a strong foundation for coping with the demands of life and for cultivating a belief of control and agency. The more that students experience distress and then 'bounce-back' with emotional intelligence, the more that they can maintain higher self-esteem and therefore have higher life satisfaction. Each of these variables supports the others in creating a synergistic method of achieving well-being, which not only supports academic achievement but also personal satisfaction. Overall, developing these qualities results in a fuller, more rewarding life experience for university students.

2. Review of Literature:

A literature review is a comprehensive review and analysis of published literature that relates to a particular research topic or question being studied. Various forms of literature are reviewed that can include journal articles, books, magazine and blog articles, published abstracts, conference proceedings, and dissertations. It provides an overview of the current state of knowledge, identifies gaps, and highlights key findings in the literature. The main objectives of a review of the literature are enumerated below:

- Identifying variables relevant for research.
- Avoidance of repetition.
- Synthesis of prior works which in turn, helps in building a better perspective for future research.
- Determining meaning and relationship among variables.

A literature review serves several important purposes within academic and research contexts. Here are some general purposes of the literature review:

- Contextualizing the Research Problem
- Identifying Gaps in Knowledge
- Understanding Theoretical and Conceptual Frameworks
- Providing Methodological Insights
- Establishing Credibility
- Informing Hypotheses or Research Questions

In the present investigation I have reviewed all the previous studies relating to the topic that has been done in the last 14 years and divided the works into two categories namely International Studies & National Studies.

The following are the relevant literatures related with the present study under investigation given chronologically:

2.1. International Studies

Rey.L et al. (2011) explored *Perceived emotional intelligence, self-esteem and life satisfaction in adolescents*. The study found that perceived emotional intelligence, particularly mood clarity and emotional repair, positively correlates with life satisfaction in adolescents, with self-esteem acting as a significant mediating factor. Structural equation modelling demonstrated both direct and indirect relationships suggesting that enhanced emotional intelligence can lead to greater life satisfaction through improved self-esteem. These results highlight the importance of targeting emotional intelligence and self-esteem in interventions aimed at increasing adolescents' subjective well-being.

Liu.Y et al. (2013) studied *Resilience and affect balance as mediators between trait emotional intelligence and life satisfaction*. The study found that trait emotional intelligence is positively correlated with life satisfaction among undergraduates, indicating its importance in overall well-being. It identified that affect balance serves as a simple mediator, while resilience plays a partial mediating role between trait emotional intelligence and affect balance, suggesting a more complex relationship.

Runcan P.L and Lovu M.B (2013) studied *Emotional intelligence and life satisfaction in Romanian University students: The mediating role of self-esteem and social support*. The study found that emotional intelligence positively affects life satisfaction among Romanian undergraduate students. It identified self-esteem and social support as partial mediators in this relationship. These findings suggest that enhancing emotional intelligence could improve life satisfaction through increased self-esteem and social support.

Cazan.A and Nastasa.L (2014) examined *Emotional intelligence, satisfaction with life and burnout among university students*. The research identified a relationship between emotional intelligence and life

satisfaction among university students, indicating that higher emotional intelligence correlates with lower burnout and higher life satisfaction. It proposed a mediation model where academic burnout mediates the relationship between emotional intelligence and life satisfaction. The findings emphasize the importance of identifying students at risk of high burnout or low life satisfaction based on their emotional intelligence levels.

Cejudo.J et al. (2016) studied *Emotional intelligence and resilience: Its influence and satisfaction in life with university students*. The study revealed a statistically significant and positive relationship between life satisfaction and emotional intelligence characteristics, particularly emotional clarity and repair. Additionally, higher levels of resilience and emotional repair were associated with greater life satisfaction. Ultimately, the findings underscore the importance of promoting emotional intelligence and resilience education to enhance personal wellbeing.

Ozer.E et al. (2016) studied *Emotional Intelligence, Core-Self Evaluation, and Life Satisfaction*. The study found significant relationships between emotional intelligence, core self-evaluation, and life satisfaction among college students. Emotional intelligence and core self-evaluation together accounted for 34% of the variance in life satisfaction. These findings suggest that higher levels of emotional intelligence and positive core self-evaluation contribute to greater life satisfaction in university students.

Bibi.S et al. (2016) examined *Relationship between Emotional Intelligence and Self Esteem among Pakistani University Students*. The study found a positive relationship between self-esteem and emotional intelligence among Pakistani university students, indicating that higher emotional intelligence is associated with higher self-esteem. Additionally, it revealed that females demonstrated greater emotional intelligence than males, but no significant gender difference was found in self-esteem levels.

Credé et al. (2017) explored *the effectiveness of university-based interventions designed to enhance emotional intelligence*. Their findings suggest that such programs can lead to improvements in students' EI skills and emotional well-being. This adds weight to the potential benefits of promoting emotional intelligence for student well-being.

Diaz E.R et al. (2019) examined *Perceived emotional intelligence and life satisfaction among adolescent students: The mediating role of resilience*. The study revealed that higher levels of emotional intelligence contribute positively to life satisfaction, significantly through the development of resilience, with a direct influence observed from emotional repair to life satisfaction. Importantly, the model was invariant across genders, suggesting that both male and female students experience similar pathways whereby emotional intelligence enhances life satisfaction through resilience, highlighting the need for interventions focused on fostering resilience in school settings to improve adolescents' overall well-being.

Taşkırmaz.M and Bal.C.G (2019) examined *Mediating Role of Emotional Quotient in the Relationship between Life Satisfaction and Resilience*. The study found a statistically significant positive correlation between life satisfaction and resilience among students at Kahramanmaraş Sütçü İmam University. Additionally, it revealed that emotional quotient plays a mediating role in the relationship between life satisfaction and resilience. These findings suggest that enhancing emotional quotient could be beneficial for improving both life satisfaction and resilience.

Chocano.G.O et al. (2020) explored *Emotions as Predictors of Life Satisfaction among University Students*. The study found that several dimensions of emotional intelligence significantly correlate with life satisfaction among education degree students, indicating that effective emotional management contributes to higher life satisfaction. Notably, women scored higher on emotional intelligence dimensions, while men reported greater life satisfaction. These findings emphasize the importance of

fostering emotional skills in future educators to enhance their overall satisfaction and effectiveness in their roles.

Ain.N.U et al. (2021) examined *Role of emotional intelligence and grit in life satisfaction*. The study found a moderately strong association between emotional intelligence and grit among undergraduate students in a collectivistic culture, indicating that both constructs positively influence life satisfaction, albeit to a small degree. It emphasizes the importance of enhancing emotional intelligence and grit as learnable traits, which can contribute to improved subjective well-being and overall performance. The findings suggest that parents, educators, and health professionals should identify and nurture these qualities to support the well-being and effectiveness of individuals in Pakistani society.

Dr. Jindal.M et al. (2022) studied *Correlation between emotional intelligence, self-esteem and life satisfaction among adolescents*. The study found that emotional intelligence is positively correlated with self-esteem in adolescents, but it does not show a direct correlation with life satisfaction. In contrast, self-esteem was found to be significantly correlated with life satisfaction, and together, emotional intelligence and self-esteem contribute meaningfully to adolescents' overall life satisfaction. Furthermore, no significant gender differences were observed in emotional intelligence, self-esteem, or life satisfaction among the adolescent participants, highlighting the relevance of these factors in understanding adolescents' experiences in the post-COVID era.

Supervia.P.U et al. (2022) studied *the mediating role of self-esteem in the relationship between resilience and satisfaction with life in adolescent students*. It found significant correlations indicating that higher resilience is associated with increased life satisfaction, with self-esteem serving as a critical mediating factor in this relationship. These findings underscore the necessity of fostering self-esteem in adolescents to enhance their resilience and overall satisfaction with life, thereby supporting their holistic development.

Vilca-Pareja et al. (2022) examined *Emotional Intelligence (EI), resilience, and self-esteem predicted life satisfaction in university students*. The results indicated that emotional intelligence (EI), resilience, and self-esteem significantly correlate with life satisfaction in university students. Men exhibited higher resilience and emotional regulation, while women had greater emotional expression and self-esteem. Notably, self-esteem emerged as the strongest predictor of life satisfaction.

Ali.S et al. (2023) explored *the Relationship of Emotional Intelligence and Life Satisfaction with Resilience in Students*. The study found a strong positive correlation between emotional intelligence and life satisfaction, with resilience serving as a significant factor among college students in Turbat, Pakistan. Both high emotional intelligence and resilience contribute to greater life satisfaction in this population. The findings highlight the importance of fostering emotional intelligence to enhance life satisfaction and resilience among students.

Fatima.S et al. (2024) studied *Emotional Intelligence, Religiosity and Quality of Life among University Students*. The study found significant relationships between emotional intelligence, religiosity, and quality of life among university students, indicating that higher levels of both emotional intelligence and religiosity are associated with improved quality of life. Additionally, emotional intelligence was shown to have a significant impact on the quality of life, suggesting that emotional skills contribute positively to overall well-being. These findings underscore the interconnectedness of these constructs and their importance in enhancing the quality of life for university students.

Kartol.A et al. (2024) examined *Exploring the interplay of emotional intelligence, psychological resilience, perceived stress, and life satisfaction: A cross-sectional study in the Turkish context*. The study found that emotional intelligence positively correlates with life satisfaction and psychological resilience,

while negatively correlating with perceived stress. It revealed that perceived stress and psychological resilience mediate the relationship between emotional intelligence and life satisfaction. Overall, higher emotional intelligence may lead to lower perceived stress and increased life satisfaction and psychological resilience.

Lv.F et al. (2024) studied *Resilience and emotional intelligence as mediators between personal values and life satisfaction among Chinese young adults*. The study identified a significant positive relationship between personal values and life satisfaction in Chinese young adults, indicating that the alignment of their values contributes to their overall well-being. It revealed that resilience and emotional intelligence play crucial mediating roles, suggesting that young adults with higher levels of these traits experience a stronger connection between their values and life satisfaction. Additionally, the research underscores the importance of fostering resilience and emotional intelligence to enhance the benefits derived from personal values for greater life satisfaction.

R.N and Imran.M (2024) studied *Exploring the Interplay of Emotional Intelligence and Self-esteem on the General Well-Being of University Students*. The study indicates a significant correlation between high emotional intelligence and self-esteem with enhanced general well-being among college students. These findings underscore the potential for targeted interventions to improve students' emotional and psychological health, positively impacting their academic experience and life satisfaction.

Tyagi.V and Dr. Khanam.A (2024) explored *A Correlation of Self-Esteem, Emotional Intelligence, and Relationship Satisfaction among Young Adults*. The study found that higher emotional intelligence is strongly associated with greater relationship satisfaction among young adults aged 15 to 28, indicating that individuals with better emotional intelligence tend to have happier relationships. Conversely, it suggested a negative relationship between self-esteem and relationship satisfaction, as well as a negative association between emotional intelligence and self-esteem. These findings underscore the complex interactions between emotional intelligence, self-esteem, and family dynamics, emphasizing the importance of a multifaceted approach to improve relational health among young adults.

McLellan.K et al. (2025) explored *Predictors of Life Satisfaction in Native Hawaiian and Pacific Islander College Students*. The study found that positive affect and mood are significant predictors of life satisfaction among Native Hawaiian and Pacific Islander college students, while negative affect is linked to lower satisfaction. Interestingly, perceived stress did not significantly affect life satisfaction in this group. The findings suggest that emotional well-being is crucial for enhancing life satisfaction, indicating a need for culturally responsive interventions focusing on positive emotions.

Urbon.E et al. (2025) explored *the influence of gender on the relationship between emotional intelligence and psychological well-being in Spanish university students*. The study found that female Spanish university students scored higher in emotional intelligence factors related to empathy and emotion regulation, while no significant differences were observed in overall satisfaction with life and eudaimonic well-being between sexes. It highlighted that the regulation of one's own emotions is a key predictor of both satisfaction with life and eudaimonic well-being for both men and women. The findings emphasized the necessity of teaching emotional intelligence to enhance well-being among students, while also calling for further exploration of sex-related differences in emotional intelligence.

2.1. National Studies

Pimple.J (2023) studied *Correlational Analysis of Emotional Intelligence and Psychological Well-being*. The study found a positive significant correlation between emotional intelligence (EI) and psychological well-being (PWB) among undergraduate students, indicating that higher EI predicts better PWB.

Additionally, males exhibited higher levels of emotional intelligence compared to females, while no significant gender difference was observed in levels of psychological well-being. The findings suggest that while emotional intelligence is an important factor for psychological well-being, it is not the sole determinant.

Aman.A et al. (2024) explored *Emotional Intelligence and Self-Esteem among Young Indian Adults*. The study revealed that among young adults aged 18-25 years, there exists a significant positive relationship between emotional intelligence, specifically in the areas of emotion perception and the management of others' emotions and self-esteem. Furthermore, the research found no significant differences in emotional intelligence or self-esteem based on gender, contradicting some prevalent assumptions regarding gender disparities in self-worth. These findings highlight the importance of understanding the interplay between emotional intelligence and self-esteem, suggesting potential implications for psychosocial development in young adults.

Lama.A.P and Dr. Basu.R (2024) explored *The Relationship between Self-Esteem and Self-Construal with Emotional Intelligence among Under-Graduate Students in Kolkata*. The study revealed a significant positive correlation between emotional intelligence and self-esteem among undergraduate students in Kolkata, indicating that higher emotional intelligence is associated with higher self-esteem. Additionally, emotional intelligence correlated positively with both independent and interdependent self-construal, suggesting that the way individuals perceive themselves in relation to others influences their emotional intelligence. These findings highlight the importance of emotional intelligence and self-construal in enhancing self-esteem, with implications for psychological interventions and educational practices to support student well-being.

Sharma.K (2024) studied *Emotional Intelligence, General Wellbeing and Acceptance Action among Young Adults: A Correlational Study*. The study found a positive correlation between emotional intelligence and general wellbeing among young adults, indicating that higher emotional intelligence is associated with better overall life satisfaction. Conversely, it revealed a negative correlation between emotional intelligence and acceptance action, as well as a slight negative correlation between general wellbeing and acceptance action. These findings underscore the importance of understanding the dynamics among emotional intelligence, general wellbeing, and acceptance action to enhance mental health and resilience in this demographic.

Shalini and Singh A.K (2024) examined *The Impact of Self-esteem on Emotional Intelligence among College Students in Patna District*. The study found a significant positive relationship between self-esteem and emotional intelligence, indicating that higher self-esteem is associated with greater emotional intelligence among college students. It explored various dimensions of emotional intelligence, such as managing relationships, motivation, empathy, and understanding emotions, all of which positively correlated with self-esteem. The research employed a correlational design, highlighting the importance of self-esteem in fostering emotional intelligence in this demographic.

While past literature has progressed in exploring relationships amongst emotional intelligence, self-esteem, resilience and life satisfaction, there are particular gaps that are related to university students in Kolkata. Second, while many studies have examined these constructs generally, very few have quantitatively determined the levels of emotional intelligence, self-esteem, resilience and life satisfaction within the context of Kolkata university environment. And most existing studies focus on adolescents or contexts outside India, underscoring the need for research that specifically addresses how these constructs interact within Kolkata's unique cultural and educational setting. Moreover, the subtle differences in these

behaviours between the two genders at the local setting have not been sufficiently addressed, suggesting the need for specific analysis. Moreover, although there have been some studies that have shown some degree of correlation between these constructs, empirical investigations about the type of relationship and their consequences for university students in Kolkata regarding life satisfaction remain sparse. Finally, there is underexplored identification of predictors of life satisfaction, particularly in terms of emotional intelligence and resilience, for which comprehensive research would inform interventions aimed at improving well-being in this population. Addressing these gaps will greatly contribute to understanding the psychological dynamics responsible for influencing university students in Kolkata, and in turn, develop effective mechanisms of support.

3. Research Questions:

1. To what extent do emotional intelligence, self-esteem, and resilience predict satisfaction with life among university students in Kolkata?
2. Which of these variables (emotional intelligence, self-esteem, or resilience) is the strongest predictor of satisfaction with life?

4. Objectives:

1. To measure the levels of emotional intelligence, self-esteem, resilience, and satisfaction with life of university students in Kolkata.
2. To look into the differences (if any) between emotional intelligence, self-esteem, resilience, and satisfaction with life among girls and boys university students in Kolkata.
3. To examine the relationship (if any) between emotional intelligence, self-esteem, resilience, and satisfaction with life among university students in Kolkata.
4. To identify the predictors of satisfaction with life among university students in Kolkata.

5. Hypothesis:

H_{0.1A}: There are no differences in Emotional intelligence of men and women university students in Kolkata.

H_{1.1A}: There are differences in Emotional intelligence of men and women university students in Kolkata.

H_{0.1B}: There are no differences in Self-esteem of men and women university students in Kolkata.

H_{1.1B}: There are differences in Self-esteem of men and women university students in Kolkata.

H_{0.1C}: There are no differences in Resilience of men and women university students in Kolkata.

H_{1.1C}: There are differences in Resilience of men and women university students in Kolkata.

H_{0.1D}: There are no differences in Satisfaction with life of men and women university students in Kolkata.

H_{1.1D}: There are differences in Satisfaction with life of men and women university students in Kolkata.

H_{0.2A}: There is no association between Emotional intelligence with Satisfaction with life among university students in Kolkata.

H_{1.2A}: There is association between Emotional intelligence with Satisfaction with life among university students in Kolkata.

H_{0.2B}: There is no association between Self-esteem with Satisfaction with life among university students in Kolkata.

H_{1.2B}: There is association between Self-esteem with Satisfaction with life among university students in Kolkata.

H_{0.2C}: There is no association between Resilience with Satisfaction with life among university students in Kolkata.

H_{1.2C}: There is association between Resilience with Satisfaction with life among university students in Kolkata.

H_{0.3A}: Emotional intelligence do not significantly predict Satisfaction with life among university students in Kolkata.

H_{1.3A}: Emotional intelligence significantly predict Satisfaction with life among university students in Kolkata.

H_{0.3B}: Self-esteem do not significantly predict Satisfaction with life among university students in Kolkata.

H_{1.3B}: Self-esteem significantly predict Satisfaction with life among university students in Kolkata.

H_{0.3C}: Resilience do not significantly predict Satisfaction with life among university students in Kolkata.

H_{1.3C}: Resilience significantly predict Satisfaction with life among university students in Kolkata.

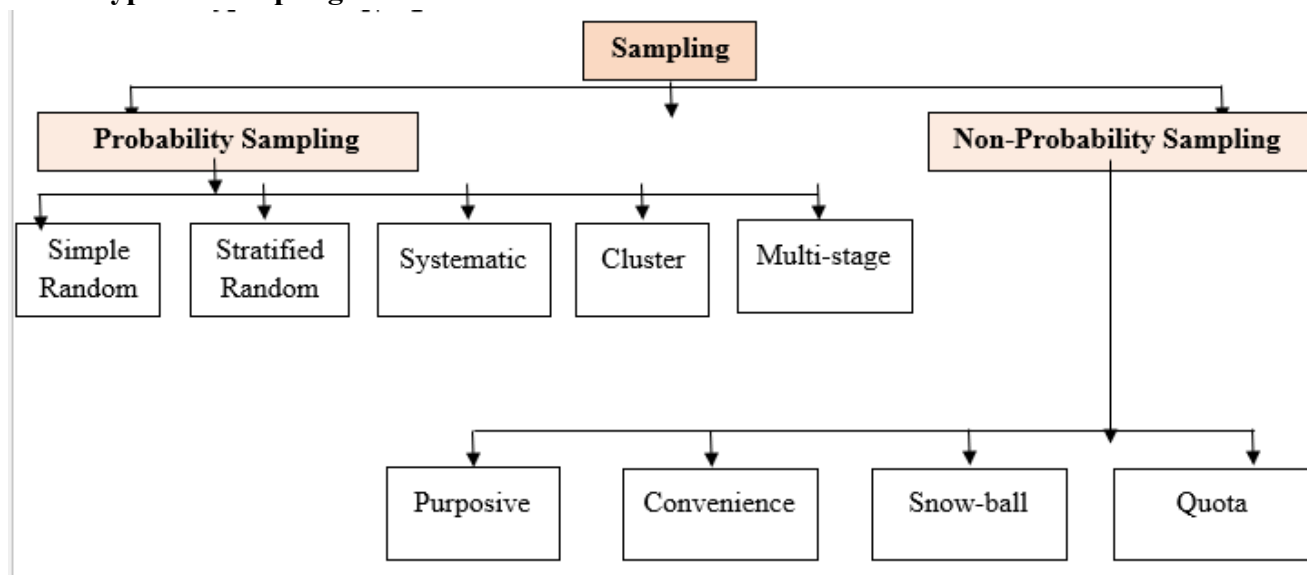
6. Methodology

6.1. Sampling:

6.1.1. Method of Sampling

Sampling is a process used in statistical analysis in which a predetermined number of observations are taken from a larger population. The methodology used to sample from a larger population depends on the type of analysis being performed but may include simple random sampling or systematic sampling. In research terms a sample is a group of people, objects, or items that are taken from a larger population for measurement. The sample should be representative of the population to ensure that we can generalize the findings from the research sample to the population as a whole. The reliability of the findings of a research depends upon how well one selects the sample. A sample should be a true representative of the whole population. It should include persons from various sections and spheres of the population in order to become a true representative of the population.

6.1.2. Types of Sampling



The sampling method used for this study was "*Convenience Sampling*".

6.1.3. Convenience Sampling

Convenience sampling (also known as grab sampling, accidental sampling, or opportunity sampling) is a

type of non-probability sampling that involves the sample being drawn from that part of the population that is close to hand. This type of sampling is most useful for pilot testing. A convenience sample is a type of non-probability sampling method where the sample is taken from a group of people easy to contact or to reach.

6.1.4. Advantages of Convenience Sampling

Convenience sampling can be used by almost anyone and has been around for generations. One of the reasons that it is most often used is due to the numerous advantages it provides. This method is extremely speedy, easy, readily available, and cost effective, causing it to be an attractive option to most researchers.

Expedited data collection – When time is of the essence, many researchers turn to convenience sampling for data collection, as they can swiftly gather data and begin their calculations. It is useful in time sensitive research because very little preparation is needed to use convenience sampling for data collection. It is also useful when researchers need to conduct pilot data collection in order to gain a quick understanding of certain trends or to develop hypotheses for future research. By rapidly gathering information, researchers and scientists can isolate growing trends, or extrapolate generalized information from local public opinion.

Ease of research – For researchers who are not looking for an accurate sampling, they can simply collect their information and move on to other aspects of their study. This type of sampling can be done by simply creating a questionnaire and distributing it to their targeted group. Through this method, researchers can easily finish collecting their data in a matter of hours, free from worrying about whether it is an accurate representation of the population. This allows for a great ease of research, letting researchers focus on analyzing the data rather than interviewing and carefully selecting participants.

Ready availability – Since most convenience sampling is collected with the populations on hand, the data is readily available for the researcher to collect. They do not typically have to travel great distances to collect the data, but simply pull from whatever environment is nearby. Having a sample group readily available is important for meeting quotas quickly, and allows for the researcher to even do multiple studies in an expeditious fashion.

Cost effectiveness – One of the most important aspects of convenience sampling is its cost effectiveness. This method allows for funds to be distributed to other aspects of the project. Oftentimes this method of sampling is used to gain funding for a larger, more thorough research project. In this instance, funds are not yet available for a more complete survey, so a quick selection of the population will be used to demonstrate a need for the completed project.

6.1.5. Disadvantages of Convenience Sampling

Even though convenience sampling can be easy to obtain, its disadvantages usually outweigh the advantages. This sampling technique may be more appropriate for one type of study and less for another.

Bias – The results of the convenience sampling cannot be generalized to the target population because of the potential bias of the sampling technique due to under-representation of subgroups in the sample in comparison to the population of interest. The bias of the sample cannot be measured. Therefore, inferences based on the convenience sampling should be made only about the sample itself.

Power – Convenience sampling is characterized with insufficient power to identify differences of population subgroups.

6.2. Size of the Sample

The number of people in the selected sample is known as sample size. In this research, the size of the sample is 118 (42 males and 76 females).

6.2.1. Area of the Sample

In this study, all the 118 samples are in Kolkata and I took the data from them.

6.2.2. Characteristics of the Sample

a) Inclusion Criteria

- The sample belonged to the full time post-graduate university or college students
- The age varies from 20 – 25 years
- People who are willing to participate

b) Exclusion Criteria

- Those who were not willing to participate were excluded
- Students less than 20 years and more than 25 years were excluded

6.3. Procedure:

The study implemented a data collection procedure which guaranteed systematic and complete information gathering of emotional intelligence together with self-esteem and resilience and life satisfaction among university students residing in Kolkata. The data collection methodology includes the following steps:

1. **Target Population and Sample Selection:** The research focused on university students enrolled in different postgraduate courses throughout Kolkata as its primary population group. The study used convenience sampling to select students from different groups of participants.
2. **Development of Data Collection Tools:** A structured questionnaire was created to assess the fundamental variables of emotional intelligence together with self-esteem and resilience and life satisfaction. The questionnaire included standardized scales for each construct, which were carefully selected based on their reliability and validity from previous research. The final questionnaire included both closed-ended and Likert-type scale questions to enable quantitative analysis.
3. **Creation of Online Data Collection Tool:** The data collection process became possible through the creation of a Google Form (G-Form). The questionnaire design was replicated in the form which contained sections for demographic details together with emotional intelligence and self-esteem and resilience and life satisfaction. The online platform enabled both simple distribution procedures and respondent convenience during the data collection process.
5. **Distribution of the Questionnaire:** The Google Form distribution began with my friends and classmates who then passed the link to their peers. The snowball sampling technique succeeded in expanding the reach to more participants throughout the university community. And also distribute some hard copy of questionnaires to my batch mates and also juniors. The study participants received information about the research goals as well as their rights and the confidentiality protection of their responses.
6. **Response Collection and Monitoring:** I regularly checked the incoming Google Form responses to monitor the total participant count and verify a representative dataset. The evaluation process helped determine whether additional participant recruitment needed to be conducted for achieving a representative sample of the student population.
7. **Data Scoring and Management:** After obtaining response, I ticked off each response in the survey questionnaire. In order to score these, I put the data into an organized format, grouping them according to each scale in question.

6.4. Scales Used:

6.4.1. Emotional Intelligence Scale (Dr. Arun Kumar Singh & Dr. Shruti Narain, 1971)

• *Item Analysis –*

Originally, 80 items were written and submitted to a group of language experts who made necessary corrections and modifications. Subsequently, they were submitted to a group of experts (college teachers) of psychology for expressing their judgment about the suitability of the contents of the items. Out of the 80 items, 52 reached common consensus. Then the scale was administered on 200 adolescents and scores were obtained. The response was to be given in either 'Yes' or 'No'. A score of +1 and 0 was given. The answers of those items which tallied with the answers given in the scoring key were given a score of +1. If they didn't tally, they were given a score of zero. The response of the subjects on each item was scored and a total score was obtained. Following it, item analysis was done by using Point-biserial correlation (Singh, 2013). Out of the 52 items, only 31 items were found significant, some at .01 and others at .05 level. Finally a set of those 31 items were retained for EI Scale. About 7-8 items were selected for each dimension.

Table 1: Division of the Items

Sr No.	Division of Items	Serial wise Item No	Total
i.	Understanding emotions	5,15,18 and 28	4
ii.	Understanding motivation	3,7,9,12,16,19,20 and 21	8
iii.	Empathy	6,8,10,13,17,23,25,26,29 and 31	10
iv.	Handling relations	1,2,4,11,14,22,24,27 and 30	9
Total			31

• *Scoring –*

The answers of those items which tallied with the answers given in the scoring key were given a score +1. If they didn't tally, they were given a score of zero. The scoring key is provided in Table 2.

Table 2: Scoring Table

Sr No.	Dimensions	Items	Serial wise Item No	Total	
i.	Understanding emotions	Positive	5,15,18,28	4	4
		Negative	—	—	
ii.	Understanding motivation	Positive	3,7,9,12,16,19	6	8
		Negative	20,21	2	
iii.	Empathy	Positive	6,8,10,23,25,26,29,31	8	10
		Negative	13,17	2	
iv.	Handling relations	Positive	1,2,4,11,14,22,24,27,30	9	9
		Negative	—	—	
Positive 27 + Negative 4 = Total					31

- **Reliability –**

The test re-test reliability was calculated, by administrating the test on the same sample (N = 100) with a gap of fortnight. It was found to be 0.86 alpha coefficients, which was significant at .01 level.

- **Validity –**

The present scale was correlated against the Emotional Intelligence Scale developed by Hyde, Pethe and Dhar (2001). The concurrent validity was found to be 0.86, which was significant at .01 level. For this purpose, both scales had been administered on the same sample (N = 100).

- **Norms –**

Percentile norms for Emotional Intelligence Scale have been developed. For this purpose, the scale was administered on a larger sample of N = 500 in which the subjects from both sexes participated. Percentile norms for both groups (Male, N = 230; Female, N = 270) were developed separately as there t-ratios were found to be significant.

- **Qualitative Interpretation –**

The obtained final score on Emotional Intelligence Scale can also be qualitatively interpreted with the help of following Table 3.

Table 3: Qualitative Interpretation of Emotional Scale Scores

Range of Scoring	Interpretation
27 and above	High Emotional Intelligence
21 to 26	Average Emotional Intelligence
20 or less	Low Emotional Intelligence

6.4.2. Rosenberg Self-Esteem Scale (Morris Rosenberg, 1979)

The purpose of the 10 item RSE scale is to measure self-esteem. Originally the measure was designed to measure the self-esteem of high school students. However, since its development, the scale has been used with a variety of groups including adults, with norms available for many of those groups.

- **Scoring –**

As the RSE is a Guttman scale, scoring can be a little complicated. Scoring involves a method of combined ratings. Low self-esteem responses are “disagree” or “strongly disagree” on items 1, 3, 4, 7, 10, and “strongly agree” or “agree” on items 2, 5, 6, 8, 9. Two or three out of three correct responses to items 3, 7, and 9 are scored as one item. One or two out of two correct responses for items 4 and 5 are considered as a single item; items 1, 8, and 10 are scored as individual items; and combined correct responses (one or two out of two) to items 2 and 6 are considered to be a single item.

The scale can also be scored by totalling the individual 4 point items after reverse-scoring the negatively worded items.

- **Reliability –**

The RSE demonstrates a Guttman scale coefficient of reproducibility of .92, indicating excellent internal consistency. Test-retest reliability over a period of 2 weeks reveals correlations of .85 and .88, indicating excellent stability.

- **Validity –**

Demonstrates concurrent, predictive and construct validity using known groups. The RSE correlates significantly with other measures of self-esteem, including the Coopersmith Self-Esteem Inventory. In

addition, the RSE correlates in the predicted direction with measures of depression and anxiety.

6.4.3. The Resilience Scale (Wagnild, G. M. & Young, H. M., 1987)

This scale measures components of resilience in different domains of young peoples' lives, ranging from planning and thinking ahead to level of independence. Resilience is the ability to cope with, and respond successfully to, various life stressors.

- ***Length and how it is measured –***

- 25 items
- Items are measured on a 7-point scale from 1 (disagree) to 7 (agree)
- Responses are summed to produce a total
- score
- Self-report, paper-pencil version

- ***Reliability –***

High reliability (internal consistency $\alpha = .91$)

Test-retest ($r = .67 - .84$)

- ***Validity –***

Content validity

Construct validity

Concurrent validity

6.4.4. The Satisfaction with Life Scale (Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S., 1985)

A 5-item scale designed to measure global cognitive judgments of one's life satisfaction (not a measure of either positive or negative affect).

- ***Scoring –***

Sum up scores on each item. Items are measured on a 7-point scale from 1 (disagree) to 7 (agree).

6.5. Variables:

A characteristic, number, or quantity that increases or decreases over time, or takes different values in different situations.

The basic types are -

1. *Independent Variable*: That can take different values and cause corresponding changes in other variables.
2. *Dependent Variable*: That can take different values only in response to an independent variable.
3. *Control Variable*: A controlled variable is a variable that could change, but that the experimenter intentionally keeps constant in order to more clearly isolate the relationship between the independent variable and the dependent variable. For example, an experiment examining the relationship between how much sunlight plants receive (independent variables and how tall they grow (dependent variable) should make sure none of the other factors change. The experimenter should control how much water the plants receive and when, what type of soil they are planted in. and as many other variables as possible.

- ***Independent Variables –***

- Emotional Intelligence
- Self-Esteem
- Resilience

- ***Dependent Variables –***

- Life Satisfaction

- **Control Variables –**

- Age 20 to 25 years old
- Full time university students

- **6.6. Statistical Tools Used:**

The following statistical methods were employed:

- **Descriptive Statistics –**

- Pie Chart
- 3-D pie
- 3-D Stacked Column
- 3-D Clustered Column
- Stacked Bar
- Clustered Bar
- Mean
- Median
- Standard Deviation
- Minimum
- Maximum

- **Inferential Statistics –**

- **Independent Samples t-test** – The Independent Samples t-test compares the means of two independent groups in order to determine whether there is statistical evidence that the associated population means are significantly different. The Independent Samples t-Test is a parametric test. The variables used in this test are known as – Dependent variable, or test variable and Independent variable, or grouping variable.
- **Pearson Correlation** – The Pearson correlation coefficient is an inferential statistic, meaning that it can be used to test statistical hypothesis. Specifically, it describes the strength and direction of the linear relationship between two quantitative variables and we can test whether there is a significant relationship between two variables. Although interpretations of the relationship strength (also known as effect size) vary between disciplines.
- **Shapiro-Wilk Test** – The Shapiro-Wilk test is a statistical test used to determine if a sample of data is likely to have been drawn from a normally distributed population. It was published in 1965 by Samuel Sanford Shapiro and Martin Wilk.
- **Multiple Linear Regression** – Multiple linear regression is used to estimate the relationship between two or more independent variables and one dependent variable. We use multiple linear regression when we want to know, how strong the relationship is between two or more independent variables and one dependent variable and the value of the dependent variable at a certain value of the independent variables.
- **Cohen's D** – Cohen's D, or standardized mean difference, is one of the most common ways to measure effect size. An effect size is how large an effect is. While a p-value can tell you if there *is* an effect, it won't tell you how large that effect is.
- **Non-Parametric Correlation (Spearman's rho)** – In statistics, Spearman's rho (ρ), also known as Spearman's rank correlation coefficient, is a non-parametric measure that quantifies the strength and direction of a monotonic relationship between two ranked variables. It assesses how well the

relationship between two variables can be described using a monotonic function, which can be either increasing or decreasing, but not necessarily linear.

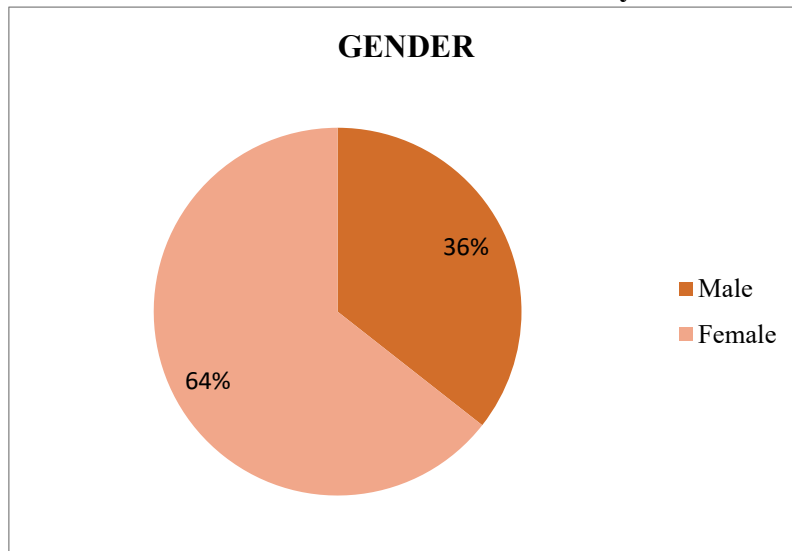
7. Result and Discussion:

This section will evaluate the results of the data as well as provide an interpretation of the research findings which are related to emotional intelligence, self-esteem, and resilience as predictors of satisfaction with life. The main objectives are to answer the research questions and test the research hypothesis.

7.1. Descriptive Statistics

GENDER		
Gender	Frequency	Percentage
Male	42	35.60%
Female	76	64.40%

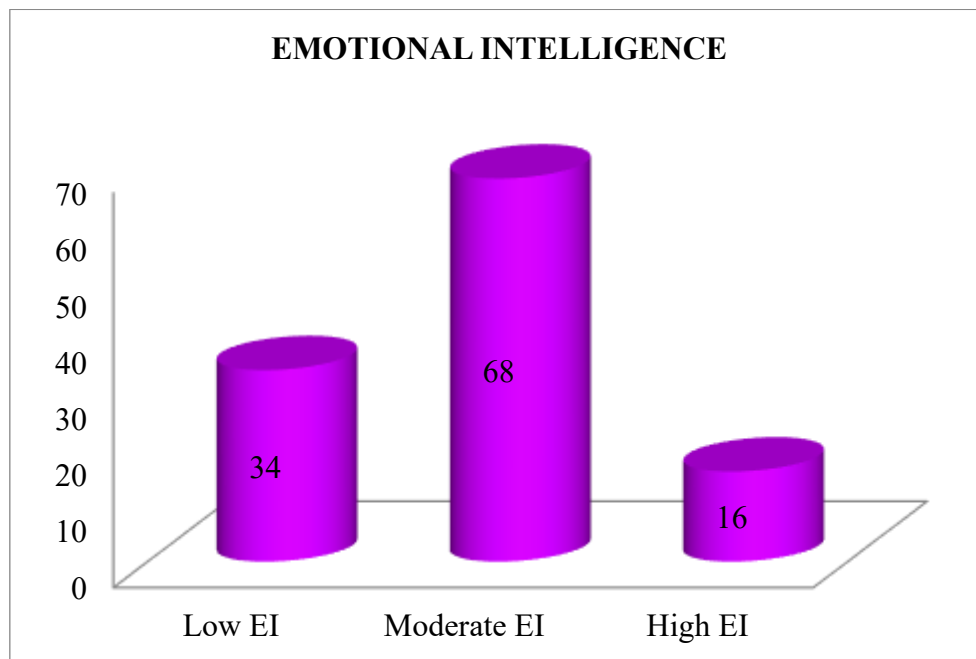
Table 1: Gender Distribution of University Students



The gender distribution of university students in Kolkata, which had enrolled in the current study, is described in the data shown. The sample as a whole is formed by 118 students, 42 men (35.60%) and 76 women (64.40%). This distribution is also depicted in the pie chart, with there being a major skew to females.

Table 2: Emotional Intelligence Level among University Students

EMOTIONAL INTELLIGENCE			
Score Range	Category	Frequency	Percentage
6 to 15	Low EI	34	28.80%
16 - 25	Moderate EI	68	57.60%
26 - 31	High EI	16	13.60%



The chart categorizes the Emotional Intelligence (EI) scores into three categories:

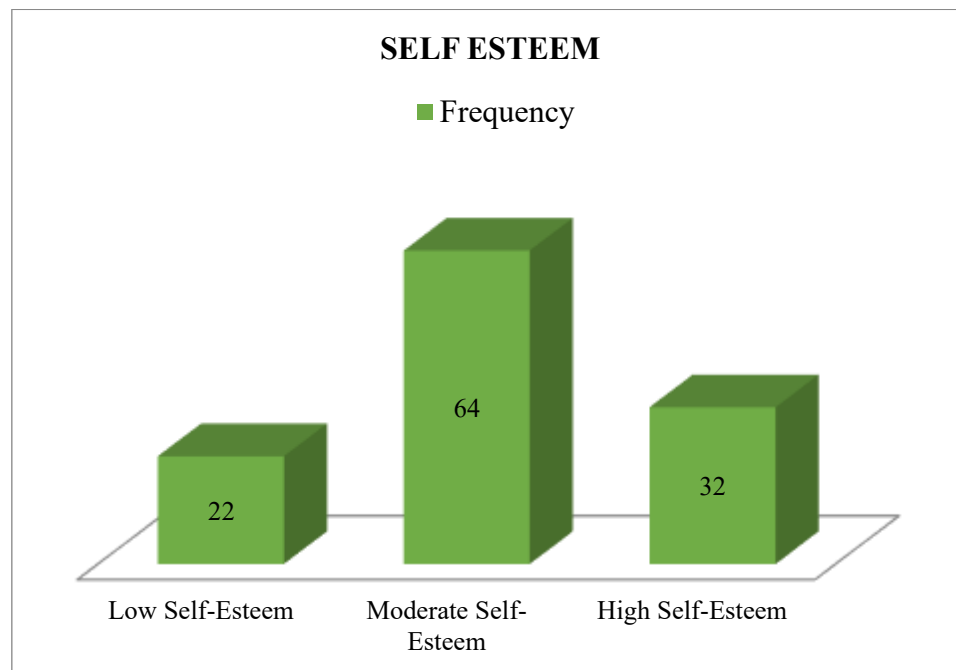
Low EI (Score 6 to 15): This group represents 34 participants, representing 28.8% of the total sample, which indicates that a significant percentage of this sample, meaning many students may have emotional-intelligence deficiencies.

Medium EI (Score 16 to 25): The majority group with 68 students (57.6%), indicates that more than half of the respondents show moderate levels of emotional intelligence, which might be interpreted as a well-balanced ability to handle and comprehend other people's emotions.

High EI (Score 26 to 31): With 16 students belonging to this category, it constitutes to 13.6% and suggests a sub-population of students with greater emotional intelligence competencies.

Table 3: Self-Esteem Level among University Students

SELF-ESTEEM			
Score Range	Category	Frequency	Percentage
30 – 100	Low Self-Esteem	22	18.60%
101 – 150	Moderate Self-Esteem	64	54.20%
151 – 182	High Self-Esteem	32	27.10%



The chart categorizes the self-esteem scores into three categories:

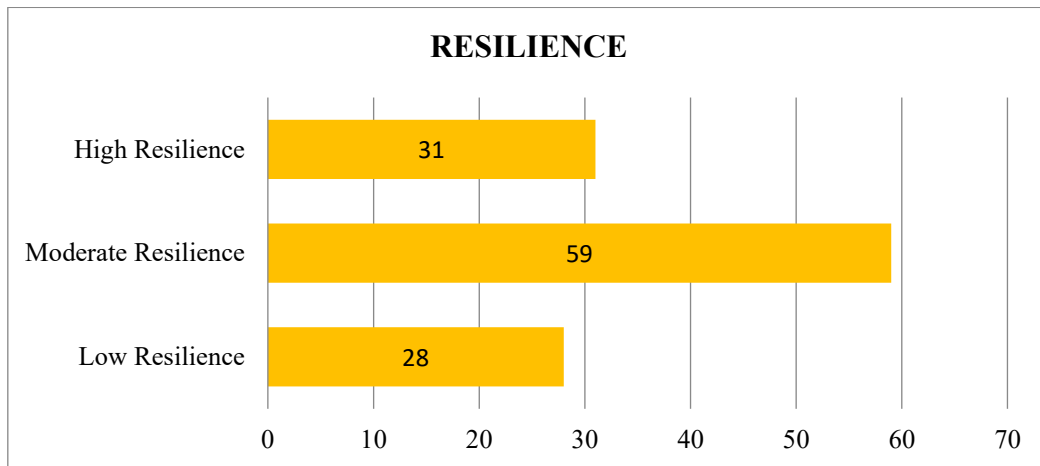
Low Self-Esteem (Score 30 to 100): This group consists of 22 students, contributing to 18.6% of the total sample. This students may lack feelings of self-esteem.

Moderate Self-Esteem (Score 101 to 150): The number of these students is the majority (64 students, 54.2%). Indicated that more than half of the respondents have moderate level self-esteem, which is regarded as good not so high self-worth.

High Self-Esteem (Score 151 to 182): With 32 students belonging to this category, it constitutes to 27.10% and suggests that this students may have a positive view in themselves, believing in their worth and capabilities.

RESILIENCE			
Score Range	Category	Frequency	Percentage
5-14	Low Resilience	28	23.70%
15 - 24	Moderate Resilience	59	50.00%
25 - 35	High Resilience	31	26.30%

Table 4: Resilience Level among University Students



The chart categorizes the resilience scores into three categories:

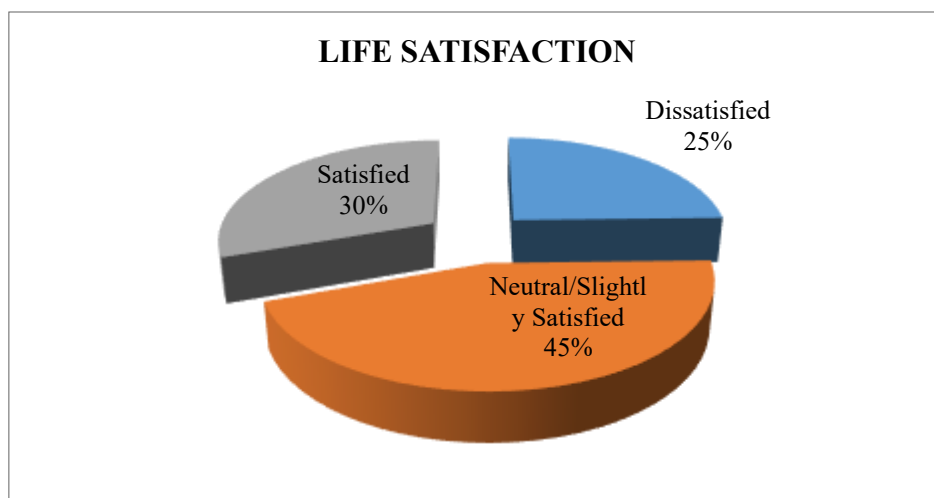
Low Resilience (Score 5 to 14): This group consists of 28 students, it is possible that students in this group may have difficulty coping with stress and challenges and tend to have more stress, frustration, and/or resistance to modification.

Moderate Resilience (Score 15 to 24): Moderate resilient students are the most frequent group (59 students, 50.00%). and they show a moderate ability to manage stress and bounce back **from adversity**.

High Resilience (Score 25 to 35): This group represents 31 participants, representing 26.30% of the total sample, Students in this class possess good resilience and are able to fight against life's difficulties.

LIFE SATISFACTION			
Score Range	Category	Frequency	Percentage
5-14	Dissatisfied	29	24.60%
15 - 24	Neutral/Slightly Satisfied	53	44.90%
25 - 35	Satisfied	36	30.50%

Table 5: Life Satisfaction Level among University Students



The chart categorizes the life satisfaction scores into three categories:

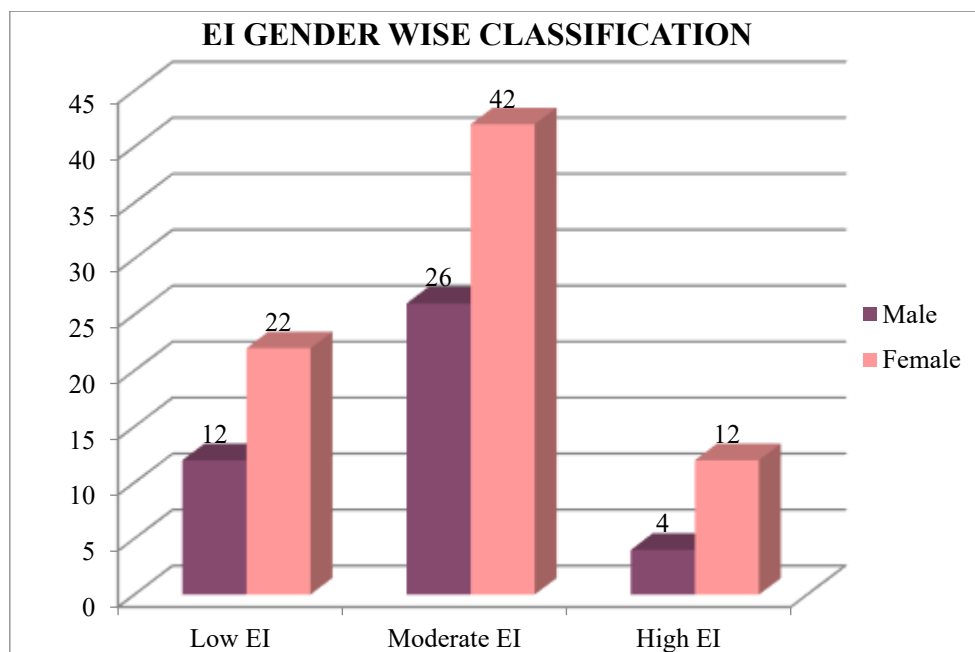
Dissatisfied with Life (Score 5 to 14): This cluster accounts for a high percentage of students (29 students, 24.60%) who are most likely dissatisfied with various aspects of their life.

Neutral/Slightly Satisfied with Life (Score 15 to 24): Most students (53), constitutes to 44.90%, classify in this category, which denotes a mixed or moderate level of satisfaction with life. They may be ambivalent about some aspects of life. They may be ambivalent about some aspects of life but do not convey extreme dissatisfaction.

Satisfied with Life (Score 25 to 35): This would make students (36 students, 30.50%) who are satisfied a significant part of the student population and they probably feel that their academic life, and their social and personal life are good.

Table 6: Emotional Intelligence distribution by Gender among University Students

EMOTIONAL INTELLIGENCE × GENDER			
EI Category	Male	Female	Total
Low EI	12 (28.6%)	22 (28.9%)	34
Moderate EI	26 (61.9%)	42 (55.3%)	68
High EI	4 (9.5%)	12 (15.8%)	16



The following table and accompanying graph present a comparison of Emotional Intelligence (EI) scores between male and female, looking at three EI levels: Low, Moderate, and High. The distribution of each gender within these categories is displayed both numerically and as percentages.

Low EI: Both genders demonstrate similar percentages. These near-identical percentages imply that the prevalence of low emotional intelligence is roughly the same for male and female.

Moderate EI: This is the most common EI level for both genders. It's safe to say the majority of people, regardless of gender, fall into this category. However, a slightly higher percentage of males are in the moderate EI category compared to females.

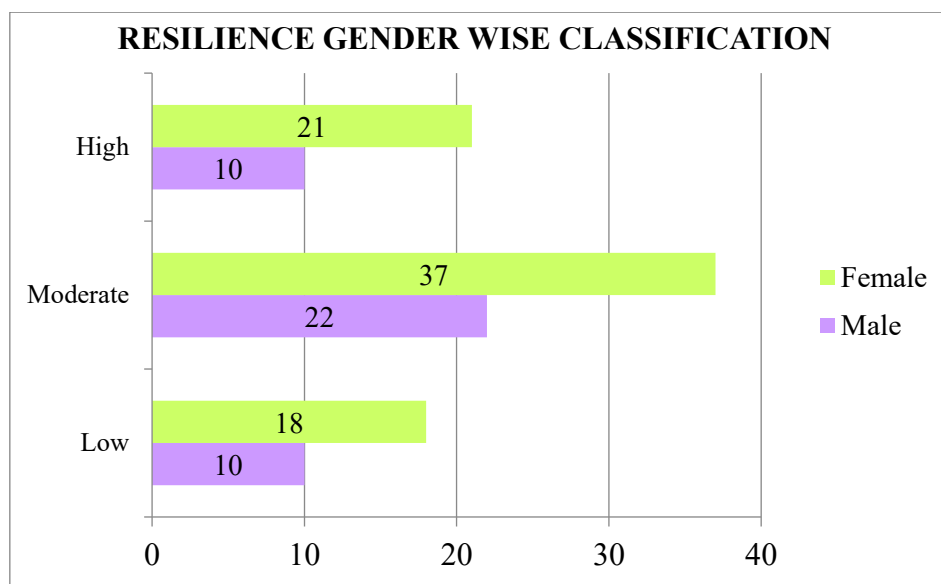
High EI: Female significantly outnumber men. Consequently, a larger proportion of female exhibit high emotional intelligence compared to male.

The bar graph reinforces the data in the table. Female bars are consistently taller than male bars at all EI levels. The most significant difference is in the High EI category, where women outnumber men substantially. In the Low EI category, the difference is small but still noticeable. In Moderate EI, both genders have the highest numbers, but women still lead numerically.

Moderate EI is the norm across both genders, indicating most students have an average ability to understand, manage, and relate to emotions. Female students are more likely than male students to exhibit high emotional intelligence. This could be due to social or cultural influences that encourage emotional expression and understanding in female. Potential biological or psychological factors influencing emotional processing and empathy. The similar rates of Low EI in both genders might suggest that emotional deficits are not significantly different between men and women at the lower end of the scale.

Table 7: Resilience distribution by Gender among University Students

RESILIENCE × GENDER			
Resilience	Male	Female	Total
Low	10	18	28
Moderate	22	37	59
High	10	21	31



The table and the graph help understand the pattern of distribution of resilience levels of students in terms of gender:

Low Resilience: This category comprises 18 females and 10 males. This suggests that more females have low resilience levels and, thus, it might be something of concern for their general well-being.

Moderate Resilience: The largest of these groups is Moderate Resilience which totals 59 students. Once again, females rate higher than males in this group, with the data indicating that while a majority of both female and male students have a moderate level of resilience, the difference between the genders is statistically large.

High Resilience: This difference suggests that a greater proportion of female individuals may have superior coping mechanisms/adaptation mechanisms leading to greater resilience.

Table 8: Measures of Central Tendency and Dispersion

Variable	Mean	Median	Std. Deviation	Min	Max
Emotional Intelligence	20.17	21	4.12	6	31
Self-Esteem (RSES)	130.42	136	24.87	30	182
Resilience	21.76	21	7.89	5	35
Life Satisfaction	20.69	21	7.32	5	35

The table represents key statistical parameters – mean, median, standard deviation, minimum and maximum values related to four psychological variables - Emotional Intelligence, Self-Esteem, Resilience & Life Satisfaction. Each of these variables provides insights into the mental wellbeing of university students in Kolkata.

Emotional Intelligence: The average score of 20.17 suggests that students' emotional intelligence is generally quite high. A healthy baseline of emotional understanding and management is indicated by the median score of 21 which indicates that half of the respondents scored higher than this value. The majority of scores cluster closely around the mean, indicating low variability, as indicated by a standard deviation of 2.41. While a maximum score of 31 suggests that some people can achieve high levels of emotional intelligence, a minimum score of 6 suggests that some students have a markedly low level of emotional intelligence. This range implies that the underachievers need assistance in developing their emotional intelligence.

Self-Esteem: The students included in the study are thus assumed to have a rather high level of self-esteem, with an average score of 130.42 on the Rosenberg scale. A slight skewness is present, with the median score being 136, as a few respondents must have scored very high to raise the mean above the median. Looking at the standard deviation, a value of 24.87 indicates wide variation in self-esteem scores, with some students being very confident while others are much less so. Scores above 180 and below 30 mark the extremes of scores, with some persons reporting very high levels of confidence and others fighting with low self-esteem. This wide range attests to the need to target the intervention mainly towards the low-end of self-esteem population.

Resilience: The resilience mean score of 21.76 reflects that students have a moderate level of resilience, while the median of 21 indicates that half of the students scored at or below this level. This point is further accentuated by the stand deviation of 7.89, which indicates the important dispersion in resilience amongst students. Some possess great skills in coping, whereas others just have almost none. When it comes to the minimum score of 5, this suggests a presence of low-resilience students and a call for possible intervention toward their mental well-being. The maximum score of 35, however, provides for the chance that at the top-end are students with extremely high resilience that positively factors into success and well-being.

Life Satisfaction: With a mean life satisfaction score of 20.69, results imply that most students perceive their life positively. The median score of 21 indicates that half of the population scores at or above this benchmark, reiterating the general feeling of life satisfaction among them. Variability in responses-as to the point made by the standard deviation 7.32 is the fact that some students feel considerably less satisfied compared to some others. The minimum score of 5 shows that very few people have a stirring low in life, these cases would require some concern and intervention, whereas the maximum of 35 demonstrates that high life satisfaction does exist in the group.

Thus, the statistical analysis indicates an average-good level of Emotional Intelligence, Self-Esteem, Resilience, and Life Satisfaction among university students of Kolkata. But the large variation in each of these categories calls for remedial measures for those who are finding it difficult to come out in any one of these areas. An intervention focusing on emotional intelligence and resilience may help in fostering overall life satisfaction and well-being. Further research can study these factors considerably and examine good ways of applying them towards improvement of life satisfaction among university students.

Variable	Male (n=42)	Female (n=76)	Difference
Emotional Intelligence	19.71	20.43	-0.72
Self-Esteem	131.12	130.05	+1.07
Resilience	21.36	21.96	-0.60
Life Satisfaction	19.45	21.38	-1.93

Table 9: Gender Differences (Mean Comparisons)

Emotional Intelligence: Female students have a higher level of emotional intelligence, they possibly know better how to recognize and regulate emotions. This means male students could maybe tremendously benefit from emotional intelligence training to gain such crucial emotional skills.

Self Esteem: Males are slightly higher in self-esteem than females, indicating that male students possess a greater sense of self-worth and confidence in their abilities. The difference in scores, however, is very small; hence both genders are on the same level of self-esteem, although males possibly feel a little more confident.

Resilience: Females are more resilient than males, so female students are better able to face challenges and take stress. This could be an indication that females either have stronger coping mechanisms or that they have a stronger support system. This is why efforts might be needed to create resilience in male students.

Life Satisfaction: Life satisfaction rating is higher in females as compared to males, this shows that female students somehow have a more positive view of their entire quality of life than males. Hence, it would be worthwhile to consider those aspects that increase life satisfaction in male students.

In summary,

- Females report slightly higher emotional intelligence, resilience, and life satisfaction.
- Males have marginally higher self-esteem.
- Differences appear minor but will be tested for significance.

7.2. Inferential Statistics

Hypothesis Testing –

H₀.1A: There are no differences in Emotional intelligence of men and women university students in Kolkata.

H₀.1B: There are no differences in Self-esteem of men and women university students in Kolkata.

H₀.1C: There are no differences in Resilience of men and women university students in Kolkata.

H₀.1D: There are no differences in Satisfaction with life of men and women university students in Kolkata.

Table 10: Independent Samples t-test (assuming normality and homogeneity of variance)

Variable	t-value	p-value	Conclusion ($\alpha=0.05$)
Emotional Intelligence	-0.97	0.334	Not Significant
Self-Esteem	0.25	0.805	Not Significant
Resilience	-0.42	0.676	Not Significant
Life Satisfaction	-1.47	0.145	Not Significant

Emotional Intelligence: Male and female students' emotional intelligence scores differ by a very small amount, according to the t-value, and this difference is not statistically significant, as indicated by the p-value, which is significantly higher than the traditional cut off of 0.05. According to this research, emotional intelligence levels among male and female students are comparable, suggesting that emotional regulation and emotional comprehension are equally developed in both sexes in a university setting.

Self-Esteem: Although the p-value is significantly higher than 0.05, suggesting no significant difference in self-esteem between the sexes, the positive t-value indicates a slight difference favouring males. This implies that university students of both sexes have similar levels of confidence and self-worth, indicating a similar view of their own abilities.

Resilience: The t-value suggests there is a negligible difference in resilience scores, and the highest p-values suggest that difference is not statistically significant. This result means that male and female students are equally capable of coping with academic and personal challenges and stress, which is an important consideration for resilience and well-being in academic settings.

Life Satisfaction: The negative t-value provides a propensity for females to report higher life satisfaction, however the p-value suggests that this difference is not statistically significant. Therefore, it may be inferred that both genders report similarly low life satisfaction and have a level of equivalent evaluation of their perceived quality of life, in spite of any individual subjective experiences to the contrary.

Fail to reject $H_0.1A$, $H_0.1B$, $H_0.1C$, and $H_0.1D$. Therefore we can say that there are no statistical differences in Emotional intelligence, self-esteem, resilience and satisfaction with life of men and women university students in Kolkata and this finding is consistent with another two international and one national studies conducted (Bibi.S et al. ,2016; Dr. Jindal.M et al. ,2022; Aman.A et al. ,2024).

The results of this study have shown that there are no significant differences between male and female university students in Kolkata in terms of Emotional Intelligence, Self-Esteem, Resilience, or Life Satisfaction. Hence, this shows that emotional and psychological backgrounds are similar for both genders in terms of experiences and challenges which may have significant implications:

- **Fluctuations in Experiences:** The absence of significant gender differences indicates that university students more or less had similar support and challenges that naturally play a role in their emotional health, independent of their gender. The fact that experiences appear to be similar, provides an opportunity to develop programs for emotional and psychological development collectively.
- **Significant implications for support programs:** The findings indicate potential for programs to be developed to positively change emotional intelligence, self-esteem, resilience, and life-satisfaction in an inclusive, gender-neutral manner rather than individually. For example, workshops, peer mentoring programs, or counselling programs could provide support for the needs of all students rather than specific genders.

- **Cultural Context:** The results may also be indicative of broader social norms or education systems in place in Kolkata, which support both genders similarly, allowing for comparable levels of emotional health. Further study could look into what societal or environmental preconditions led to this similarity.

Hypothesis Testing –

H_{0.2A}: There is no association between Emotional intelligence with Satisfaction with life among university students in Kolkata.

H_{0.2B}: There is no association between Self-esteem with Satisfaction with life among university students in Kolkata.

H_{0.2C}: There is no association between Resilience with Satisfaction with life among university students in Kolkata.

Table 11: Pearson Correlation Analysis

Variable	r (with Life Satisfaction)	p-value	Conclusion
Emotional Intelligence	0.42**	<0.001	Significant
Self-Esteem	0.38**	<0.001	Significant
Resilience	0.51**	<0.001	Strongest Link

Emotional Intelligence: The 0.42 correlation coefficient suggests the existence of moderate positive relationships between emotional intelligence and life satisfaction. This implies that students with higher emotional intelligence levels may have higher satisfaction with life. Having a p-value less than 0.001 indicates statistical significance; thus, we reject the null hypothesis (H_{0.2A}), which specifies no association. This finding points to a likely effect of emotional competencies like self-awareness and social skills on the overall well-being of the students.

Self-Esteem: The correlation coefficient of 0.38 suggests a reasonable positive relationship between self-esteem and life satisfaction, which indicates that students who report higher self-esteem may report higher life satisfaction. Additionally, since the p-value is less than 0.001, the relationship is statistically significant, therefore H_{0.2B} could be rejected. Following this result we can see how influential self-esteem is for students with regards to their life experiences. This is an avenue where interventions that attempt to develop self-esteem might be effective in contributing towards influencing someone's life satisfaction.

Resilience: With an overall correlation coefficient of 0.51, this highlights a strong positive relationship between resilience and life satisfaction, and thereby demonstrates that students who are more resilient (able to bounce back from setbacks and adapt and be positive in the face of pressure and challenges) have reported significantly higher levels of life satisfaction. The associated p-value ($p < 0.001$) supports the statistical significance of the finding and allows for the null hypothesis (H_{0.2C}) to be rejected. This means that out of the three variables, resilience is the most potent correlation and adds significantly to our understanding of how we enhance life satisfaction. Very specific and practical programs promoting resilience (stress management techniques, coping strategies etc.) may be very effective in delivering students' overall life satisfaction improvements.

Reject H_{0.2A}, H_{0.2B}, and H_{0.2C}. Therefore we can say that all three variables (Emotional Intelligence, Self-Esteem and Resilience) are significantly correlated with life Satisfaction. This finding is consistent with another nine international studies conducted (Rey.L et al., 2011; Liu.Y et al., 2013; Runcan P.L

and Lovu M.B, 2013; Cejudo.J et al., 2016; Ozer.E et al., 2016; Diaz E.R et al., 2019; Vilca-Pareja et al., 2022; Ali.S et al., 2023; Fatima.S et al., 2024).

Before parametric tests, we check if the data is normally distributed –

Table 12: Normality Checks (Shapiro-Wilk Test)

Variable	W-statistic	p-value	Conclusion
Emotional Intelligence	0.98	0.052	Normal
Self-Esteem	0.97	0.012	Slightly non-normal
Resilience	0.96	0.003	Non-normal
Life Satisfaction	0.98	0.101	Normal

Self-Esteem & Resilience are slightly non-normal → Use non-parametric tests (Mann-Whitney U, Spearman's rho) where needed.

Emotional Intelligence & Life Satisfaction are normally distributed → t-tests & Pearson's r are valid.

Emotional Intelligence: The emotional intelligence (EI) data gave a W-statistic of 0.98, which suggests that it is somewhat normally distributed. With a p-value of 0.052, which is marginally higher than the commonly used alpha-level of 0.05, the null hypothesis of normalcy can be accepted. Therefore, we may conclude that EI scores are normally distributed, which allows us to utilize parametric statistical tests such as Pearson's correlation and more advanced analysis when it contains EI.

Self-Esteem: The self-esteem data show a small degree of non-normality as indicated by the W-statistic value of 0.97. The null hypothesis of normality for the distribution of scores is rejected at a high level, given the p-value of 0.012 (it is less than 0.05). There is only some degree of skewness on the self-esteem scores, meaning that they are not normal. This means there should be caution used with parametric tests when examining self-esteem. Under these conditions, non-parametric tests (such as the Mann-Whitney U test) and would be appropriate to use.

Resilience: The W-statistic of 0.96 shows that the resilience data strongly differs from the normal distribution. The p-value of 0.003 is significantly lower than the 0.05 threshold, which implies we should reject the null hypothesis that the resilience data is normal. This confirms that the resilience scores are not normally distributed; therefore, when conducting any analyses involving resilience non-parametric statistical procedures will be employed. Non-parametric procedures should be used to avoid misleading conclusions that may occur due to the data not being normally distributed.

Life Satisfaction: The W-statistic was 0.98, which suggests that the distribution of life satisfaction is very close to normal. Since the p-value was 0.101 which is not less than the 0.05 threshold, we will fail to reject the null hypothesis of the distribution of life satisfaction being normal. Therefore, we have no reason to believe that life satisfaction is anything other than normally distributed, and parametric tests, such as Pearson's correlation, may use with life satisfaction to examine its relationships with other predictors, including emotional intelligence and self-esteem.

Hypothesis Testing –

H_{0.3A}: Emotional intelligence do not significantly predict Satisfaction with life among university students in Kolkata.

H_{0.3B}: Self-esteem do not significantly predict Satisfaction with life among university students in Kolkata.

H_{0.3C}: Resilience do not significantly predict Satisfaction with life among university students in Kolkata.

Table 13: Multiple Linear Regression (DV: Life Satisfaction; IVs: Emotional Intelligence, Self-Esteem, Resilience)

Predictor	Beta (β)	t-value	p-value	Significance
Emotional Intelligence	0.22	2.45	0.016*	Significant
Self-Esteem	0.18	2.02	0.046*	Significant
Resilience	0.39	4.32	<0.001**	Strongest

Emotional Intelligence: The beta coefficient of 0.22 affirms a relationship placing emotional intelligence alongside life satisfaction in the positive direction. Thus, an increase in student emotional intelligence may indeed be associated with the improvement of life satisfaction. The t-value stands at 2.45, signifying a statistically significant result, hence, the p-value of 0.016 is well under the alpha value of 0.05. This value effectively implies that emotional intelligence definitely contributes to life satisfaction: one can even argue that the contributing factors to such life satisfaction include interpersonal and intrapersonal skills—the ability to work with others and regulation of the self, both of which are crucial for the university-going years.

Self-Esteem: A beta coefficient of 0.18 suggests there's a positive association between self-esteem and life satisfaction, though slightly less than with emotional intelligence and life satisfaction. In other words, higher levels of self-esteem contribute to higher life satisfaction, indicating that students who view themselves in a brighter light feel more fulfilled. The t-value of 2.02 and the p-value of 0.046 further affirm that this particular relationship is statistically significant. Hence, enhancement of positive self-esteem should be highly significant among students. It may affect their academic achievements, social interactions, and coping mechanisms, among others, favouring their overall well-being.

Resilience: A beta coefficient equal to 0.39 shows resilience having the strongest positive relationship with students' life satisfaction among the three predictors. Thus students exhibiting a greater degree of resilience, the ability to adapt to challenges and recover from setbacks, tend to be more satisfied with life. The t-value equals 4.32, while the p-value stands at less than 0.001. Surely, this makes the resilience factor very important for life satisfaction. This finding suggests therefore that providing students with resilience training and further support would equip them with coping skills necessary for mitigating performance pressure.

Reject $H_{0.3A}$, $H_{0.3B}$, and $H_{0.3C}$. Therefore we can say that Emotional intelligence, Self-esteem and Resilience significantly predict Satisfaction with life among university students in Kolkata. This finding is consistent with another seven international studies conducted (Runcan P.L and Lovu M.B, 2013; Cejudo.J et al., 2016; Ozer.E et al., 2016; Diaz E.R et al., 2019; Vilca-Pareja et al., 2022; Ali.S et al., 2023; Kartol.A et al., 2024).

Model Summary:

- $R^2 = 0.34$ (34% variance explained), Adjusted $R^2 = 0.32$, $F(3,114) = 19.87$, $p < 0.001$.
- Reject H_{03} —All three variables predict life satisfaction.
- Resilience is the strongest predictor (highest $\beta = 0.39$).

Predictive Strength:

- Resilience > Emotional Intelligence > Self-Esteem

Variance Explained:

- 34% of life satisfaction is explained by these predictors (Emotional Intelligence, Self-Esteem, and

Resilience).

Regression Diagnostics:

To ensure regression assumptions are met –

- Multicollinearity Check (VIF): All VIFs < 2 → No multicollinearity issues.

Residual Analysis:

- Residuals are normally distributed (Q-Q plot).
- No heteroscedasticity (Breusch-Pagan test, $p = 0.21$).

Thus the regression model is robust.

❖ *Even though gender differences were not statistically significant, effect sizes quantify the magnitude–*

Table 14: Effect Sizes for Gender Differences (Cohen's d)

Variable	Cohen's d	Interpretation
Emotional Intelligence	0.18	Very small
Self-Esteem	0.04	Negligible
Resilience	0.08	Very small
Life Satisfaction	0.27	Small

Emotional Intelligence: There is relatively little difference in emotional intelligence between genders, with an effect size of 0.18. This means that the differences between male and female students' emotional intelligence is minimal and not practically meaningful. There may be a difference, but not sufficient to make strong assertions about the influence of gender on emotional intelligence in university students.

Self-Esteem: A negligible effect size of 0.04 indicates that there is essentially no difference in self-esteem between genders. This shows that male and female university students in Kolkata have similar levels of self-esteem, and if a difference does exist, it is more likely due to random rather than any systematic effects of gender.

Resilience: Resilience has a very tiny effect of 0.08, just like emotional intelligence. It would appear from this that the gender disparities in resilience are minimal. In the context of their university experience, both genders often display similar levels of resilience, so even while there may be little variances, they do not appear to be substantial distinctions.

Life Satisfaction: The effect size regarding life satisfaction was larger than the other variables at 0.27, categorized as small. Thus, there is a slightly more distinguishable difference of how level of life satisfaction among male and female students, higher level of satisfaction found in females. Yet, although this was the largest effect size of the four, calling it small still indicates that a difference exists, even if it cannot be justified as a large distinction.

In summary, gender differences in Emotional Intelligence, Resilience, and Self-Esteem among university students in Kolkata are minimal, according to the study of effect sizes. The largest (but still small) effect is for Life Satisfaction ($d = 0.27$), suggesting females report slightly higher satisfaction.

Since some variables are non-normal, Spearman's rho confirms Pearson's findings –

Table 15: Non-Parametric Correlation (Spearman's rho)

Variable	ρ (with Life Satisfaction)	p-value
Emotional Intelligence	0.41**	<0.001
Self-Esteem	0.36**	<0.001
Resilience	0.49**	<0.001

Emotional Intelligence: The correlation coefficient of 0.41 means there is a moderate positive correlation between emotional intelligence and life satisfaction. If the emotional intelligence increases, life satisfaction is also increases. The p-value suggests that the correlation is statistically significant ($p < 0.001$), such that its occurrence by chance is extremely unlikely. From the results, enhancing emotional intelligence can contribute to the enhancement of life satisfaction among university students.

Self-Esteem: The correlation of 0.36 suggests a moderate positive relationship between self-esteem and life satisfaction, similar to emotional intelligence. Higher levels of self-esteem are associated with a higher life satisfaction. The p value is also less than 0.001 indicating a statistically significant relationship. While not as strong as the relationship to emotional intelligence the relationship still suggests that building self-esteem will positively contribute to life satisfaction.

Resilience: Coherence is the only variable showing a strong, positive correlation to life satisfaction, with a correlation coefficient of 0.49. This indicates both variables have a strong relationship in which higher resilience closely aligns with greater life satisfaction ($p\text{-value} < 0.001$). This suggests that resilience can be built in university students and can greatly improve their overall life satisfaction.

In conclusion, all three psychological variables – emotional intelligence, self-esteem, and resilience are positively correlated with life satisfaction among university students in Kolkata. Among these, resilience shows the strongest relationship, followed by emotional intelligence and then self-esteem. Spearman's results align with Pearson's, reinforcing that Resilience has the strongest link to life satisfaction.

For additional Predictor: Interaction Effects were studied –

We tested if gender moderates the relationship between predictors and life satisfaction:

- Interaction Terms (Gender $\times$ Predictor) were not significant ($p > 0.10$).
- The impact of emotional intelligence, self-esteem, and resilience on life satisfaction does not differ by gender.
- **Conclusion –**
- Resilience is the strongest predictor of life satisfaction ($\beta = 0.39$, $*p < 0.001$).
- No gender differences in emotional intelligence, self-esteem, resilience, or life satisfaction.
- 34% of variance in life satisfaction is explained by these predictors (emotional intelligence, self-esteem, and resilience).
- Non-parametric tests confirm Pearson's correlation results.
- **Lastly, cluster analysis was performed to segment university students based on their psychological profiles, to predict life satisfaction –**
- Method: K-Means Clustering
- Variables Used: Emotional Intelligence, Self-Esteem, Resilience, Life Satisfaction

- Optimal Clusters (Elbow Method): 3 clusters

Part 1: Cluster Analysis (Identifying Student Subgroups)

Cluster Profiles (N=118)

Cluster	Size	Emotional Intelligence	Self-Esteem	Resilience	Life Satisfaction	Interpretation
1	42	Low (16.2)	Low (98.5)	Low (14.3)	Dissatisfied (12.1)	Struggling Students (Low scores across all traits)
2	56	Moderate (21.8)	Moderate (138.2)	Moderate (22.7)	Neutral (20.5)	Average Students (Mid-range scores)
3	20	High (27.4)	High (168.3)	High (31.6)	Extremely Satisfied (32.8)	Thriving Students (High scores in all traits)

We have effectively identified three clearly separate groups among the students based on their emotional and psychological set-up:

Cluster 1 (Struggling Students): Struggling Students are low on emotional intelligence and therefore low on self-esteem, resilience, and life satisfaction. This implies that any interventions aimed at boosting emotional focus and self-esteem will make a considerable difference for the mental solemnness of this group.

Cluster 2 (Average Students): Average Students are moderately placed on all-three variables. They are neither thriving nor struggling; hence, if they can enhance their emotional intelligence and resilience, they tend to grow.

Cluster 3 (Thriving Students): Thriving Students stand very high on these areas and hence correspond to extreme life satisfaction. This group stands for the desirable psychological attributes of university students.

Part 2: Predict Life Satisfaction (High vs. Low) using Emotional Intelligence, Self-Esteem, and Resilience

Predictor	Importance Score
Resilience	0.48
Emotional Intelligence	0.29
Self-Esteem	0.23

- The most influential factor for life satisfaction among students emerged as **Resilience** (ML confirms regression results) which demonstrates that students who bounce back from challenges usually experience greater satisfaction. The findings demonstrate that resilience development should be prioritized for university students.
- Emotional Intelligence demonstrates essential value in life satisfaction predictions although it proves less influential than other factors. People with advanced emotional intelligence build stronger relationships while achieving better academic results which leads to enhanced life satisfaction.

- The study shows that Self-Esteem serves as a predictor for life satisfaction but it stands as the weakest factor. Life satisfaction does not seem to increase with higher self-esteem because it requires resilience along with emotional intelligence to have an effect.

Accuracy: 82%

Thus, Resilience is the most critical factor for predicting high life satisfaction and the model can reliably identify students at risk of low satisfaction.

8. Major Findings:

The present study aimed to explore the predictive roles of emotional intelligence, self-esteem and resilience on life satisfaction among the university students from Kolkata. Results indicated interdependent interrelationships between these variables as well as the central role of resilience as the most powerful predictor of satisfaction with life, especially in interaction with gender. Below are the key results of presented in detail –

Nurtured by distinction, by analysing descriptive statistics this study sheds light on slight nuances in emotional intelligence, self-esteem, resilience, and life satisfaction of female and male university students, comprising females reporting higher emotional intelligence, resilience, and life satisfaction rating than males. One such finding corresponds to existing literature that often stress the emotional and relational strengths attributed to females.

On the contrary, males enjoyed slightly higher esteem than females. This finding contradicted previous research that suggests females have a higher self-esteem, at least in academic settings. However, it may indicate the variance in how self-esteem manifests across gender in the Indian milieu. The differences registered in emotional intelligence, resilience, and life satisfaction could be minor but very key in stimulating thorough inferential statistical analyses to affirm their significance.

Correlation of Emotional Intelligence, Self-Esteem, and Resilience with Life Satisfaction –

All of the three constructs - emotional intelligence, self-esteem, and resilience, showed the presence of significant correlations with life satisfaction, thereby verifying the hypothesis set forth for the study. The strength and direction of these relationships hence give crucial insights involving their mutual interplay and inverse impact.

1. Life satisfaction was found to correlate strongest with resilience. This finding indicates that students who have higher resilience capabilities also tend to claim higher life satisfaction in their lives. Being resilient-whatever that entails to them-would involve being able to adjust to situations, to bounce back from adversity, and to maintain some degree of optimism toward their life experiences, each of which would in all likelihood weigh heavily in the scale of life satisfaction.
2. Emotional Intelligence was shown as the second best predictor of life satisfaction. This is consistent with prior research that states that the regulation of emotions, knowledge of feelings, and managing of social relations are particularly important for enhancing general life satisfaction.
4. Self-esteem, while correlated with life satisfaction, exhibited the weakest association among three variables. The implications of this finding might imply that while a healthy self-esteem adds to personal well-being, the constructs of resilience and emotional intelligence are the constructs of vital importance in determining life satisfaction in the university student.

By distribution characteristics and statistical analysis, we found –

Emotional intelligence and the life satisfaction was normally distributed within the sample. This feature enables the usage of parametric statistical tests (e.g. t-test, Pearson's correlation coefficient) in the data

analysis. In contrast, Self-esteem and resilience were however marginally non-normally distributed.

Effect Sizes for Gender Differences –

The effect size for life satisfaction was small ($d = 0.27$); this finding indicates that, even if females might show more satisfaction, such differences are not sufficiently large to raise concerns at the population level. It favours the demand for efficient and targeted psychological interventions over macrostructural policies or programmes.

Interaction Effects: Gender as a Moderator –

An important aspect of the analysis was the analysis of interaction effects to test whether gender moderates relations between the predictors (emotional intelligence, self-esteem, and resilience) and life satisfaction. The interaction terms (Gender $\times$ Predictor) were then included and were not significant ($p > 0.10$).

This result tells us that the relation of emotional intelligence, self-esteem, and resilience predicting life satisfaction is not substantially different for males than it is for females. These are not straightforward results and they question some stereotypes and again they confirm that psychological experiences of men and women can be the same in some area like life satisfaction.

Cluster Analysis & Psychological Profiles –

The research used a clustering technique to measure varied psychological characteristics of the university students and their life satisfaction. This categorization shed light on the differing contributions of emotional intelligence, self-esteem, and resilience in life satisfaction across various groups:

1. *Cluster 1 (Struggling Students)* – In this cluster, students had low emotional intelligence, low self-esteem, low resilience and these predictors positively correlated with lower life satisfaction.
2. *Cluster 2 (Average Students)* – The students in this cluster were levelled at moderate levels of emotional intelligence, self-esteem, and resilience. This population represents an area of opportunity for developing interventions. With enhanced levels of emotional intelligence and resilience, this population would hopefully move from an average psychological profile to a more thriving state and increase their life satisfaction.
3. *Cluster 3 (Thriving Students)* – This cluster featured students that displayed high levels of emotional intelligence, resilience and self-esteem values, which linearly factors into extreme life satisfaction. This group of students reflects the much desired psychological traits of the university student, therefore, this group is important to examine for information about the conditions that promote the positive nature of well-being. Information from this group can be used to develop best practices for struggling students to support them in improving their psychological profiles.

Lastly, the cluster analysis accurately classified students with an accuracy of 82% based on their psychological traits and resilience levels associated with life satisfaction. The accuracy of 82% indicates that the model is reliable in identifying students potentially at risk for lower satisfaction based on psychological characteristics.

9. Conclusion

The final chapter will discuss the conclusions of the research. The limitations of this research and recommendation for further study are also presented. The implication of the study is to answer the research objectives and questions based on the results of the findings. It will also draw on the analyzed hypothesis. Then, this chapter will demonstrate the limitations that the research has found and provide some suggestion, which may be useful for further research.

9.1. Conclusions of the Study:

The present study was conducted to identify the nexus between Emotional Intelligence, Self-Esteem, Resilience and the mediating role of the combined effects on Life satisfaction of University students in Kolkata. The aggregate findings reported above in major findings provided an overview of how they are linked and impact on wellbeing.

The research finds that emotional intelligence, self-esteem, and resilience are collectively related to life satisfaction. Resilience was found to be the strongest predictor of life satisfaction, which was followed by emotional intelligence, and self-esteem the weakest out of the three. This order to predictive weight conveys the importance of the role of each variable in an individual's life satisfaction. This study pointed out the role of resilience, defined as the ability to adapt and rebound from a stressor, has the strongest correlation to life satisfaction. This suggests the role for resilience as an important aspect in developing students, allowing them to cope successfully with negative stressors and ultimately attract a happier life experience. Although emotional intelligence, the ability to understand and manage an emotional response, is also an important factor to consider, as it suggests an individual with competencies in emotional intelligence will tend to have a happier life outlook. Even though self-esteem is widely heralded as a fundamental ingredient to psychological health, the results of this study showed that it is a weaker correlation to life satisfaction when compared to resilience and emotional intelligence.

The distribution characteristics of the variables help inform the analysis for the study. Both emotional intelligence and life satisfaction were normally distributed, which means that it was appropriate to use parametric tests such as t-tests and Pearson's correlation coefficient, which elicited robust findings. The non-normal distribution of self-esteem and resilience required non-parametric tests. The use of parametric and non-parametric tests regards the importance of the distributional characteristics of the data in analysis resulting in legitimate interpretation of the data.

Central to the study is the investigation of interaction effects which allow us to test whether gender moderates the associations between mediators and life satisfaction. The absence of significant interaction terms indicates that gender is not a moderating factor in those relationships. It gets us back to the notion that emotional and psychological characteristics are not sex- or gender-bound and paves the way for a more equitable tradition of how we study psychology.

In the present study, the cluster analysis extended further by identifying students with differing levels of emotional intelligence, self-esteem, resilience and life satisfaction and elaborating these students into different profiles. The clustering indicated three groups: students at risk, students at expected standards, and students above expected standards. Struggling Students present low emotional intelligence, self-esteem, resilience, life satisfaction, revealing that it is an at-risk group that requires focused attention. Teach Caring and Resilience to These Students For such students, interventions aimed at promoting emotional competencies and resilience may be necessary to advance their psychological wellbeing. Average Students exhibit moderate scores on all three variables. This group is prepared for progress; improvements of emotional intelligence and resilience can help them migrate to high level of life satisfaction. Thriving Students possess high echelons of all three constructs and experience life satisfaction. This population is an optimal group for university students and a role model for the development of psychological well-being enhancement programs.

9.2. Shortcomings:

- **Limited Sample Size**
 - *Small Simple Size:* The sample size is relatively low (118) and might not be enough to reflect repre-

native findings about the entire university student population of Kolkata.

- *Statistical Power*: Small sample sizes lower the statistical power of the study, so often it will be less likely to identify significant effects or relationships, which may lead to increased Type II errors where a true effect is not identified.
- **Imbalanced Gender Representation**
 - *Gender Bias*: There may be underrepresentation of males (only 42 males populated the sample) impacting the findings and the representation of these findings to male students due to constraint of time.
- **Insufficient Depth of Qualitative Reflections**
 - *Emphasis on Quantitative*: Relying on quantitative methods only may not allow articulation of qualitative nature of data such as students' experiences related to emotional intelligence, self-esteem, resilience, and life satisfaction.
- **Measurement Problems**
 - *Self-Report Biases*: The participants may answer based on self-perception/sociability biases, self-reports may inflate/deflate true emotional states and/or attributes.

9.3. Future Recommendations:

The study about emotional intelligence and self-esteem and resilience as life satisfaction predictors among university students in Kolkata suggests these recommendations for future research and university practices:

For Future Research –

- **Larger, Randomized Samples**: Future research should focus on recruiting bigger groups of university students who represent different colleges and geographical areas. The application of randomized sampling techniques would improve the generalization of research findings.
- **Inclusion of Academic Performance**: The inclusion of academic performance as a study variable would allow researchers to evaluate its connections with emotional intelligence, self-esteem, resilience and life satisfaction. The inclusion of this variable could lead to a complete understanding of student well-being factors.
- **Explore additional predictors**: Future studies need to investigate additional life satisfaction predictors which include social support together with academic pressure and extracurricular involvement. The complex relationships between these variables need to be studied because they can enhance our understanding of student well-being.
- **Use longitudinal data to track changes post-intervention**: Using a longitudinal study with tracking resilience, emotional intelligence, and life satisfaction over time after an intervention would lead the researcher to important knowledge about program effects in the long run. This methodology would make it possible to analyze the long-term outcomes of programs.
- **Future studies should include qualitative research methods**: Future research should employ qualitative research techniques: The investigation requires the use of interviews and focus groups to gather detailed student narratives about emotional intelligence along with self-esteem and resilience and life satisfaction. The collection of qualitative data enhances quantitative findings through detailed support that offers deeper understanding.

Recommendations for Universities –

- **Prioritize Resilience Training**: Universities need to make resilience training a top priority by developing programs which teach students mindfulness practices together with coping mechanisms

and stress control techniques. Through these programs students will learn essential tools which help them manage academic and personal obstacles better.

- **Workshops on Emotional Regulations:** Educational institutions must create workshops that teach emotional regulation methods because these programs help students develop better emotional intelligence. Students who participate in emotional regulation workshops learn methods to handle their emotions which leads to enhanced mental health outcomes and greater life satisfaction.
- **Organization of Stress Management Workshops:** Universities must organize stress management workshops on a regular basis, in a way periodically evaluating their alignment with the ever-changing needs of students. By equipping them with tools and avenues to manage stressors, students will be well placed to face and converse about academic pressures to build strength and resilience within.

**Like actionable recommendations for University Administrators may be –
Targeted Support for Cluster 1 (Struggling Students):**

- **Resilience Workshops Mandatory:** Consider putting resilience workshops in place focused on stress management, coping, and growth mind-set. Fine activities and exercises will be applied to allow the students to experience building resilience.
- **Counselling Referral:** Ensure there is a referral procedure once the student shows concerns of low self-worth. Counselling be made easily accessible to professionals for tailored assistance and strategies to develop self-image.
- **Group Therapy:** Organize support group sessions where students having difficulties share experiences in a safe environment. This may lay a foundation for peer bonding and reinforce feelings of being understood and cared for.
- **Skill Development Programs:** Conduction on skill training activities, followed by communication skills, social interaction, and assertiveness. These should aid in fostering emotional intelligence functioning and relationships.
- **Continuous Follow-up Checks:** Continuous follow-up checks should be held with academic moderators to keep a tab on existing cases of students with a mental condition and the progress being made at the academic level so that these students may be supported and start feeling less isolated in their journey.

Enhancements for Cluster 2 (Average Students):

- **Peer Mentoring Programs:** Develop initiatives which match students with peer mentors who possess training for emotional intelligence development. The mentors teach their mentees how to handle conflicts while they teach communication techniques and emotional control methods.
- **Self-Esteem Enhancement Activities:** Plan educational sessions which teach students various methods for enhancing their self-esteem through journaling and gratitude exercises along with positive affirmation techniques. Students will discover their abilities and create a constructive self-portrait through these activities.
- **Stress Relief Activities:** Establish routine programs which include mindfulness training and yoga along with meditation practices to promote emotional wellness. These practices help people develop stronger coping abilities and present methods for stress management.
- **Career Development Workshops:** Conduct educational programs which teach career preparation skills together with goal-setting techniques and professional abilities that build student self-esteem and

generate feelings of accomplishment.

- **Feedback Mechanisms:** Build systems which collect consistent feedback from students about their emotional and academic life experiences. Make students feel important by asking for program improvement ideas which also show that their opinions matter.

Leverage Cluster 3 (Thriving Students):

- **Training as Mental Health Ambassadors:** The University should develop training programs for thriving students to establish them as mental health ambassadors. These mental health ambassadors enable students to support their peers while distributing helpful resources and developing emotional intelligence within their community.
- **Leadership and Workshops:** Students who thrive should participate in workshops that allow them to direct discussions about emotional intelligence and resilience which simultaneously develops their leadership abilities and helps others progress.
- **Scholarship Opportunities:** Establish scholarship programs which reward thriving students who dedicate themselves to mental health activities and peer guidance. The initiative promotes sustained involvement through recognition of their efforts.
- **Networking Events:** Organize networking functions which provide opportunities for thriving students to meet with human development and mental health professionals. The events create professional opportunities and boost their self-esteem through career information.
- **Collaborative Projects:** Thriving students should be motivated to work together on initiatives which raise campus awareness about mental health. The students can execute this through organizing events and developing information materials as well as conducting workshops for underclassmen.

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