

JAMOVI ANALYSIS: IMPACT ASSESSMENT OF HAPPINESS ON LIFE SATISFACTION

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Abstract

This study investigates the relationship between happiness and life satisfaction while exploring the impact of sociodemographic factors such as age, gender, location, and educational attainment. Utilizing a quantitative research design, data were collected from a sample of 33 participants through a self-administered, researcher-constructed questionnaire. The instrument's reliability was confirmed with a Cronbach's alpha of 0.829, and a pilot study involving 33 participants validated the tool's clarity and effectiveness. Results from linear regression analysis indicate that happiness significantly predicts life satisfaction ($\beta = 0.714$, $p = 0.008$), explaining 47.9% of the variance in life satisfaction ($R^2 = 0.479$). In contrast, sociodemographic factors—age, gender, location, and education—did not have significant effects. Exploratory factor analysis revealed two distinct factors: one encompassing psychological constructs and the other demographic characteristics, though some items showed high uniqueness, suggesting areas for scale improvement. The findings emphasize the critical role of happiness in life satisfaction, with implications for well-being interventions and psychological research.

Keywords: Happiness, Life Satisfaction.

Introduction

Life satisfaction is a multi-faceted concept that encompasses an individual's overall evaluation of their quality of life according to their own chosen criteria. As a key indicator of well-being, it

reflects how content and fulfilled people feel with various aspects of their existence, ranging from personal relationships and career achievements to physical health and spiritual pursuits. Unlike momentary experiences of pleasure or discomfort, life satisfaction is generally stable over time, drawing from cumulative experiences and an individual's assessment of their progress toward significant goals. Researchers emphasize that life satisfaction is subjective, meaning that the criteria and standards of a fulfilling life can differ dramatically from one person to another. This subjective evaluation, however, is heavily influenced by both internal and external factors, such as psychological health, socioeconomic status, and social connections. Increasing interest in understanding the antecedents and correlates of life satisfaction has led scholars to explore the psychological components that elevate or diminish one's sense of well-being. In particular, happiness, a state characterized by feelings of joy and fulfillment, has emerged as a critical variable warranting deeper investigation.

Happiness, often described as a positive emotional state or a sense of contentment, plays a pivotal role in shaping an individual's overall well-being. Distinguished from temporary pleasure or hedonistic moments, happiness encompasses a more enduring sense of satisfaction with life that emerges from a coherent and meaningful existence. Theories of happiness highlight the interplay of affective (emotional) and cognitive (evaluative) dimensions, suggesting that happiness stems from both how people feel and how they think about their lives. Positive psychology, a field dedicated to understanding the strengths and virtues that contribute to human flourishing, has placed significant emphasis on happiness as a core component of well-being. Scholars such as Martin Seligman and Mihaly Csikszentmihalyi argue that happiness does not merely result from avoiding negative experiences but from engaging in purposeful activities and cultivating virtues such as gratitude, resilience, and optimism. Research has shown that individuals who report higher levels of happiness are more likely to exhibit better health outcomes, stronger social connections, and greater resilience in the face of life's adversities. Thus, happiness, as a fundamental component of psychological well-being, has far-reaching implications for an individual's life course and long-term satisfaction.

The relationship between happiness and life satisfaction is intricate and interdependent, characterized by a continuous feedback loop where each influences and reinforces the other. Numerous studies have highlighted that while happiness contributes significantly to an individual's overall sense of satisfaction, life satisfaction, in turn, can shape the intensity and frequency of one's happiness. This bidirectional association suggests that people who experience frequent positive emotions are more likely to rate their lives as satisfactory, while a high level of life satisfaction can enhance one's capacity to feel happy. Theoretical frameworks such as the broaden-and-build theory propose that positive emotions, including happiness, can broaden an individual's thought-action repertoire, enabling them to build enduring personal resources like resilience, social support, and cognitive flexibility, which further elevate life satisfaction. Conversely, a satisfying life—encompassing fulfilling relationships, meaningful goals, and personal accomplishments—provides a fertile ground for cultivating happiness. This complex interaction underscores the significance of understanding how emotional well-being and life satisfaction reinforce one another, contributing to an overall sense of purpose and fulfillment. As we explore the impact of happiness on life satisfaction, it becomes evident that fostering positive emotions is essential not only for personal happiness but also for sustaining a deeply satisfying and meaningful life.

Literature Review

The paper "**Happiness and the Importance of Life Satisfaction**" by Daniel M. Haybron (2001) critically examines the philosophical and practical significance of life satisfaction as a measure of well-being, arguing that it is often overrated and not synonymous with happiness. The objective is to explore the limitations of life satisfaction theories and assess how well they explain or align with human welfare and happiness. Haybron highlights three primary issues: the arbitrariness of life satisfaction judgments, the lack of consistent and well-defined attitudes toward life satisfaction among individuals, and the potential divergence between cognitive appraisals and affective experiences. The author uses a theoretical approach, supplemented by empirical studies, to critique the assumption that life satisfaction is a reliable indicator of well-being. Findings suggest that life satisfaction may often be constructed on the spot, heavily influenced by transient moods and contextual factors, and not well-connected to an individual's

genuine emotional state. Haybron concludes that while life satisfaction has some relevance, it should not be equated with happiness or be a central focus for measuring well-being [3].

The study titled **"Quality of Life, Life Satisfaction, and Happiness in Shift- and Non-Shiftworkers"** by Kaliterna Lipovcan, Prizmic Larsen, and Zganec (2004) aimed to assess how different work schedules impact workers' quality of life, life satisfaction, and happiness. The research involved 1,728 social care professionals from Croatia, divided into three groups: night-shift workers (n=311), day-shift workers (n=207), and non-shift workers (n=1,210). Using mailed surveys with an 86% response rate, the study employed the Quality of Life Profile to measure satisfaction, control, and opportunities across nine life domains, alongside measures of happiness and work demands. Results revealed that although night-shift workers needed more physical effort and experienced greater fatigue, there were no significant differences in overall happiness or life satisfaction across groups. However, night-shift workers reported more time feeling unhappy and had lower satisfaction in spiritual and community aspects, as well as fewer opportunities for leisure and personal growth. This research highlights that while shift work doesn't reduce global well-being scores, it negatively affects specific quality of life domains [4].

The article **"Life Satisfaction and Happiness: The Factors in Work Performance"** by Štreimikienė and Grundey (2009) examines how various factors related to work, such as job satisfaction, relationships, and motivation, influence life satisfaction and happiness among employees, with a focus on the labor market in Lithuania. The study's objective was to analyze the role of work in overall well-being and the significance of non-economic factors like personal relationships and job conditions in shaping life satisfaction. Using a review of international research, along with data and surveys specific to the United States, South Africa, and Lithuanian labor market contexts, the authors discuss how income levels only minimally impact happiness, while factors like unemployment and poor job satisfaction have stronger negative effects. The findings suggest that unemployment significantly reduces life satisfaction but does not directly influence happiness. Moreover, job attributes, such as relationships with coworkers and the quality of work environment, play a crucial role in determining well-being. The authors conclude

that organizations should emphasize aligning job roles with individual strengths and providing meaningful work to enhance overall happiness and productivity [12].

The research study titled "**The Relationship between Life Satisfaction and Happiness: The Mediating Role of Resiliency**" by Nemati and Maralani (2016) aimed to examine how resiliency mediates the association between life satisfaction and happiness among university students. The study employed a correlational design with structural equation modeling and sampled 241 female students from the University of Tehran, selected using simple random sampling. The research utilized the Life Satisfaction Scale (Diener et al., 1985), the Connor-Davidson Resilience Scale (Connor & Davidson, 2003), and the Oxford Happiness Questionnaire (Argyle, 1990) to measure the variables. Findings revealed that life satisfaction has a significant direct effect on happiness and that resiliency acts as a mediating factor. Specifically, higher life satisfaction was associated with greater happiness, both directly and indirectly through increased resiliency. These results underscore the role of resiliency in enhancing the psychological well-being of students, suggesting that interventions aimed at improving life satisfaction can promote happiness by strengthening resilience mechanisms [6].

The study "**Are Happiness and Life Satisfaction Different Across Religious Groups? Exploring Determinants of Happiness and Life Satisfaction**" by Ngamaba and Soni (2017) investigates how subjective well-being (SWB), measured through happiness and life satisfaction, varies across religious affiliations and whether this variation is influenced by socioeconomic and cultural factors. Utilizing data from the World Values Survey (1981-2014), the research analyzed responses from over 330,000 participants across 100 countries, employing a multilevel mixed-effects regression model to assess differences. The findings show that Protestants, Buddhists, and Roman Catholics reported higher levels of both happiness and life satisfaction, whereas Orthodox Christians exhibited the lowest SWB. Additionally, significant determinants of SWB include health status, financial satisfaction, and the perception of freedom. These findings highlight that religiosity and national development contexts jointly shape SWB, emphasizing the complex role of cultural and economic factors in religious groups' experiences of well-being [8].

The study **"Life Satisfaction and Happiness Associated with Depressive Symptoms among University Students: A Cross-Sectional Study in Korea"** by Seo et al. (2018) investigated the link between life satisfaction, happiness, and depressive symptoms in a large sample of 2,338 students from six universities in Gwangju and two provinces of Korea. Using a cross-sectional design, depressive symptoms were measured with the Beck Depression Inventory, while life satisfaction and happiness were assessed using the Satisfaction with Life Scale and the Positive Psychotherapy Inventory, respectively. The analysis revealed that 13.4% of the students experienced depression, with higher rates in females and among those perceiving their body shape as obese or having insufficient pocket money. Significant protective factors against depression included higher levels of life satisfaction and happiness, while risk factors encompassed hazardous alcohol consumption and poor sleep quality. These findings emphasize the importance of enhancing life satisfaction and happiness to mitigate depressive symptoms in university students and suggest targeted interventions for mental health improvement [11].

The study titled **"A Student-Oriented Study: Analyzing the Relationship between Happiness and Satisfaction with Life"** by Çakır and Demirel (2019) aimed to explore the levels of happiness and life satisfaction among university students and examine how various factors influence these concepts. Using a sample of 801 students (394 males and 407 females, with an average age of 23.58 years) from Necmettin Erbakan University and Pamukkale University in Turkey, the research employed a survey method with the Life Satisfaction Scale and the Oxford Happiness Scale (short version), both of which were adapted for a Turkish context. Data analysis utilized independent t-tests, ANOVA, and Pearson correlation after confirming the suitability of parametric tests using the Shapiro-Wilk normality test. The findings revealed that life satisfaction significantly varied with age and regular engagement in sports, while happiness showed differences based on gender, department, grade, and department satisfaction. Notably, a positive and meaningful correlation between life satisfaction and happiness was identified, suggesting that increased life satisfaction is associated with higher happiness levels [2].

The article **"The Relationships between Physical Activity and Life Satisfaction and Happiness among Young, Middle-Aged, and Older Adults"** by An et al. (2020) aimed to

explore how varying levels of physical activity influence life satisfaction and happiness across different age groups. The researchers conducted a cross-sectional study involving a sample of 2,345 healthy adults from Southern Taiwan, categorized into young (18–44 years), middle-aged (45–64 years), and older adults (65 years and above). Data were gathered through a physical fitness examination and questionnaires assessing physical activity levels, life satisfaction, and happiness. Using multiple hierarchical regression analyses, the findings demonstrated that higher physical activity levels, both moderate and vigorous, were significantly associated with greater life satisfaction and happiness across all age groups. Additionally, the relationship between age and well-being was found to be curvilinear, with life satisfaction and happiness increasing with age. The study underscores the importance of promoting physical activity to enhance psychological well-being throughout the lifespan [1].

The study “**Happiness, Life Satisfaction and Self-Esteem among Urban University Students**” by Kaushik and Babu (2021) investigated the interrelationship among happiness, life satisfaction, and self-esteem in a sample of 150 urban university students from Guwahati, Jorhat, and Dibrugarh in Assam, India, comprising an equal number of males and females (75 each). Utilizing a correlational research design, the researchers employed Rosenberg’s Self-Esteem Scale, the Oxford Happiness Inventory, and the Satisfaction with Life Scale to measure the three constructs. Key findings indicated a significant positive relationship between self-esteem and life satisfaction, but no significant relationship between self-esteem and happiness. Gender differences were also examined, revealing that females had higher happiness scores compared to males, but there were no significant gender differences in life satisfaction or self-esteem. The study underscores the influence of self-esteem on life satisfaction, emphasizing the need for future research to explore broader populations and diverse socioeconomic backgrounds for more nuanced insights [5].

The chapter “**Happiness or Life Satisfaction?**” from *Happiness—Concept, Measurement and Promotion* by Yew-Kwang Ng (2022) explores the conceptual and practical differences between happiness and life satisfaction, arguing for the preference of happiness as a more reliable and ultimately valuable measure of well-being. The objective is to evaluate which construct is better suited for understanding individual and societal welfare. The discussion emphasizes that life satisfaction is prone to shifts in aspiration levels and is influenced by social comparisons, making

it less stable and comparable over time compared to happiness. Ng illustrates how these differences impact self-reported well-being and emphasizes the role of altruistic behaviors, which may create a divergence between feeling happy and reporting life satisfaction. The analysis is based on a conceptual examination supported by examples and references to studies on hedonic well-being, measurement issues, and psychological theories. The author concludes that happiness, defined as the net balance of positive and negative feelings, should be prioritized over life satisfaction for both personal and policy assessments of well-being due to its intrinsic value and greater intertemporal consistency [7].

Significance And Research Gap

The collective significance of the reviewed papers lies in their comprehensive examination of the intricate interplay between happiness, life satisfaction, and various psychological and lifestyle factors. These studies underscore the critical role of well-being indicators in enhancing mental health, particularly in vulnerable populations such as university students and shift workers. They highlight how constructs like resiliency, physical activity, and self-esteem can buffer against mental health challenges, including depression and anxiety. Furthermore, the research emphasizes the relevance of both internal and external determinants of happiness and life satisfaction, such as social relationships, job satisfaction, sleep quality, and physical fitness, in promoting overall well-being. The studies collectively advance the understanding of how psychological constructs not only contribute to personal well-being but also have broader implications for societal health, workplace productivity, and policy interventions. This body of research emphasizes the value of positive psychology interventions and the potential benefits of addressing factors like sleep disturbances, job stress, and unhealthy lifestyle habits to foster more resilient and satisfied communities.

Despite the valuable insights offered by these studies, several research gaps remain. Many of the papers focus on cross-sectional data, limiting the ability to infer causality between life satisfaction, happiness, and mental health outcomes. The reliance on self-reported measures also raises concerns about the accuracy of the findings, particularly in culturally diverse settings

where perceptions of well-being may vary. Moreover, there is a lack of longitudinal studies that could shed light on the dynamic relationships between well-being indicators and long-term mental health effects. Research exploring the impact of these constructs across different cultural or socioeconomic backgrounds is relatively limited, suggesting a need for more inclusive and cross-cultural studies. Additionally, while many studies recognize the role of factors like sleep quality and alcohol consumption, few have explored the underlying mechanisms that mediate these relationships. Finally, the emphasis on university students and certain occupational groups leaves a gap in understanding how these relationships manifest in older adults, non-student populations, or in different professional sectors. Future research should address these limitations through more robust, diverse, and longitudinal methodologies.

Research Methodology

A. Research Design and Method

This study employs a quantitative research design to explore the relationships between happiness, life satisfaction, and various sociodemographic factors such as age, gender, location, and educational attainment. A structured approach is used to gather data numerically and apply statistical analysis to draw meaningful conclusions about the predictors of life satisfaction. A cross-sectional survey method is utilized to collect data from participants at a single point in time. This method is appropriate for analyzing the associations between variables and providing insights into the impact of sociodemographic factors and happiness on life satisfaction. The study's reliance on a quantitative approach ensures objective measurement and statistical validation of findings.

B. Sample Size

The study targets a sample of 33 respondents, who are selected using a stratified random sampling technique. This sampling method ensures that participants represent diverse sociodemographic categories, such as different age groups, genders, locations (urban, semi-urban, and rural), and levels of educational attainment. Stratification allows for an adequate representation of each subgroup and increases the generalizability of the findings.

C. Research Tool

The primary research instrument is a self-administered questionnaire that has been constructed and validated by the researcher. The questionnaire comprises sections measuring life satisfaction, happiness, and demographic variables. Specifically, it includes:

- Life Satisfaction Scale (LSS): A set of items assessing participants' overall evaluation of their life satisfaction.
- Happiness Scale (HS): A set of items measuring participants' levels of happiness.
- Demographic Information: Questions related to age, gender, location, and educational background.

The reliability of the research tool has been previously assessed, with a Cronbach's alpha of 0.829, indicating a high level of internal consistency. This ensures that the scales used in the study reliably measure the constructs of interest.

D. Pilot Study

A pilot study was conducted with a subsample of 33 participants to test the clarity, reliability, and validity of the research instrument. The pilot study helped identify any ambiguities or issues with the questionnaire items, ensuring that they are easily understood and interpreted by respondents. Based on the feedback and initial analysis from the pilot study, minor adjustments were made to improve the phrasing and comprehensibility of certain questions. The pilot study confirmed the tool's reliability and provided preliminary evidence supporting the feasibility of the main study.

Reliability Analysis [13]

Table 1 - Scale Reliability Statistics

	Mean	SD	Cronbach's α
Scale	3.62	0.633	0.829

Table 2 - Item Reliability Statistics

	Mean	SD	Item-rest correlation	If item dropped Cronbach's α
LS1	3.45	1.277	0.536	0.814
LS2	3.85	1.004	0.670	0.798
LS3	3.36	1.168	0.469	0.820
LS4	2.64	1.025	0.469	0.819
LS5	3.21	1.166	0.691	0.794
HP1	3.70	1.015	0.740	0.791
HP2	3.94	0.747	0.476	0.819
HP3	3.88	0.893	0.404	0.824
HP4	4.06	0.609	0.155	0.839
HP5	4.12	0.992	0.530	0.813

The presented reliability analysis provides insights into the internal consistency of a psychological scale used in the study, with a primary focus on both overall scale reliability and individual item contributions to this consistency.

1. Scale Reliability

The overall Cronbach's alpha (α) for the scale is 0.829, indicating a high level of internal consistency. Typically, a Cronbach's alpha value above 0.7 is considered acceptable, while values above 0.8 are regarded as good. Thus, the scale demonstrates reliable measurement, suggesting that the items are well-correlated and consistently measure the underlying construct of interest, such as life satisfaction or happiness.

2. Item Reliability

The analysis also assesses the impact of removing individual items on the overall reliability of the scale:

- Items LS1, LS2, LS3, LS4, and LS5: These items correspond to the life satisfaction component. Their item-rest correlations range from 0.469 to 0.691, indicating moderate to strong correlations with the rest of the scale. Removing LS2 or LS5 would increase the reliability slightly, as their high item-rest correlations suggest they are strongly contributing to the overall consistency. Items LS3 and LS4 have lower item-rest correlations, and removing them would have less impact on alpha, suggesting these items may be slightly weaker in relation to the overall construct but still contribute to maintaining reliability.
- Items HP1, HP2, HP3, HP4, and HP5: These items correspond to the happiness component. HP1 has the highest item-rest correlation (0.740), indicating a strong association with the overall scale. Removing HP1 would decrease Cronbach's alpha the most (to 0.791), showing that it is a crucial item for the scale's reliability. Conversely, HP4 has the lowest item-rest correlation (0.155), suggesting it does not correlate well with the other items. If HP4 were dropped, the overall reliability would improve to 0.839, highlighting its weaker contribution to the internal consistency of the scale.

3. Interpretation Summary

Overall, the scale demonstrates good reliability ($\alpha = 0.829$), with several items contributing well to this consistency. However, HP4 appears to be a problematic item with a low item-rest correlation, and removing it would improve the scale's internal consistency. Items with higher item-rest correlations, such as LS2, LS5, and HP1, are particularly strong contributors to the overall reliability of the scale. This analysis suggests that the scale is generally robust, but there is room for improvement by reconsidering or refining weaker items like HP4.

Exploratory Factor Analysis [9]

Table 3 - Factor Loadings

	Factor 1	Factor 2	Uniqueness
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AG		0.752	0.450
GEN			0.972
LOC			0.924
EDU		0.881	0.186
LS1	0.518	0.306	0.564
LS2	0.728		0.457
LS3	0.404		0.708
LS4	0.475		0.729
LS5	0.692		0.459
HP1	0.831		0.300
HP2	0.617		0.639
HP3	0.551	-0.328	0.674
HP4		-0.324	0.859
HP5	0.607		0.648

Note. 'Minimum residual' extraction method was used in combination with a 'oblimin' rotation

The Exploratory Factor Analysis (EFA) results provided include factor loadings, showing how each item correlates with the two identified underlying factors, and the "uniqueness" values, indicating the proportion of each item's variance not explained by the factors. Here's a detailed interpretation:

1. General Overview

The factor loadings reveal which items are strongly associated with each of the two extracted factors. Loadings close to ± 1 indicate a strong association, while loadings near 0 suggest a weaker relationship. Typically, a loading above 0.4 is considered acceptable to indicate that an item significantly loads onto a factor. Uniqueness values measure how much of an item's variance is not explained by the common factors; lower values (closer to 0) indicate that the item

is well-explained by the factors, whereas higher values (closer to 1) suggest that the item has a considerable amount of unexplained variance.

2. Factor Loadings Interpretation

- Factor 1: Several items load significantly onto this factor:
 - AG (loading = 0.752): This item has a strong loading on Factor 1, suggesting that it is well-represented by this factor.
 - LS1 (0.518), LS2 (0.728), LS5 (0.692), HP1 (0.831), and HP5 (0.607): These items also load well onto Factor 1, indicating that they are likely measuring a similar underlying construct. Items like HP1 have particularly high loadings, suggesting they strongly reflect this factor.
 - HP3 (0.551): Although it loads moderately onto Factor 1, its high uniqueness (0.674) suggests a significant portion of this item's variance is not explained by the two factors.
 - Negative Loadings: HP4 has a negative loading (-0.324) on Factor 1, which might imply an inverse relationship with this factor; however, this loading is relatively weak.
- Factor 2: A different set of items is associated with this factor:
 - GEN (0.972) and LOC (0.924): These items load very strongly on Factor 2, indicating that this factor may capture a distinct construct related to these items.
 - EDU (0.881): This item also loads heavily on Factor 2, with low uniqueness (0.186), indicating that it is well-represented by this factor.
 - LS3 (0.708) and LS4 (0.729): These items load well on Factor 2, suggesting they are part of the construct measured by this factor.
 - HP2 (0.639): This item has a moderate loading on Factor 2, but it also has a relatively high uniqueness (0.639), meaning a substantial amount of its variance remains unexplained by the two factors.
 - HP4 (0.859): This item has a strong loading on Factor 2 and low uniqueness, indicating that it is well-explained by this factor.

3. Uniqueness Interpretation

- Low Uniqueness: Items like GEN (0.028), LOC (0.076), and EDU (0.186) have low uniqueness values, meaning they are well-explained by the extracted factors and contribute significantly to the factor structure.
- High Uniqueness: Items like LS1 (0.564), HP2 (0.639), and HP3 (0.674) have higher uniqueness values, indicating that these items have a substantial amount of variance not captured by the factors. This suggests that they may not fit as well within the two-factor model or may measure additional constructs not represented by these factors.

Data Analysis

Objective

The objective of this analysis is to investigate the influence of various predictors, including happiness, age group (AG), gender (GEN), location (LOC), and education level (EDU), on life satisfaction. Specifically, the study seeks to determine how these factors contribute to explaining the variance in life satisfaction among individuals.

Null Hypothesis

1. H_0 (Overall Model Fit): The regression model does not significantly explain the variance in life satisfaction, implying that the combined predictors (happiness, age group, gender, location, and education) do not have a statistically significant effect on life satisfaction.
2. H_0 (Individual Predictors):
 - Happiness has no significant effect on life satisfaction ($\beta = 0$).
 - Age group differences do not significantly affect life satisfaction ($\beta = 0$ for all age groups).
 - Gender has no significant effect on life satisfaction ($\beta = 0$).
 - Location (urban or semi-urban vs. rural) has no significant effect on life satisfaction ($\beta = 0$ for both comparisons).
 - Education level (bachelor's, master's, or doctorate degree vs. high school) has no significant effect on life satisfaction ($\beta = 0$ for all levels).

These hypotheses serve as a baseline to test whether any of the predictors in the linear regression model have a statistically significant impact on life satisfaction.

Linear regression [10]

Table 4 - Model Fit Measures

Model	R	R ²
1	0.692	0.479

Table 5 - Model Coefficients - Life Satisfaction

Predictor	Estimate	SE	t	p
Intercept ^a	-0.428	0.976	-0.439	0.665
Happiness	0.714	0.246	2.906	0.008
AG:				
25-35 – 15-25	0.709	0.741	0.957	0.348
45-55 — 15-25	-0.461	0.830	-0.556	0.584
65 and above – 15-25	1.077	0.830	1.297	0.207
GEN:				
Female – Male	-0.131	0.305	-0.429	0.672
LOC:				
Urban-Rural	0.826	0.635	1.299	0.207
Semi-Urban – Rural	0.975	0.840	1.160	0.258

EDU:				
Bachelor's Degree – High School	0.111	0.419	0.264	0.794
Master's Degree – High School	0.946	0.801	1.181	0.250
Doctorate – High School	NaN	NaN	NaN	NaN

Note. Linear model contains aliased coefficients (singular fit)

^a Represents reference level

- **Interpretation of overall model fit hypothesis**

The overall model fit measures, with an R^2 value of 0.479, indicate that approximately 47.9% of the variability in life satisfaction is explained by the predictors included in the regression model. However, to determine whether this model fit is statistically significant, we would need to perform an F-test. If the null hypothesis (that the combined effect of happiness, age, gender, location, and education is not significant) is rejected, it would suggest that these predictors collectively explain a significant portion of the variation in life satisfaction. A failure to reject this hypothesis would imply that the combined predictors are not sufficient to explain life satisfaction meaningfully.

- **Interpretation of the happiness hypothesis**

The coefficient for happiness is 0.714 with a p-value of 0.008, indicating a statistically significant positive relationship between happiness and life satisfaction. This result suggests that, for every one-unit increase in happiness, life satisfaction is expected to increase by 0.714 units, holding all other variables constant. Since the p-value is less than the conventional threshold of 0.05, we reject the null hypothesis that happiness has no effect on life satisfaction. This finding supports the idea that happiness is a strong and significant predictor of life satisfaction.

- **Interpretation of the age group hypothesis**

The age group comparisons show mixed results. The coefficient for the age group 25-35 compared to 15-25 is 0.709 with a p-value of 0.348, and the coefficient for 45-55 compared to 15-25 is -0.461 with a p-value of 0.584. Additionally, for the age group 65 and above compared to 15-25, the coefficient is 1.077 with a p-value of 0.207. None of these coefficients are statistically significant at the 0.05 level. Thus, we fail to reject the null hypothesis for age group differences, suggesting that age does not have a significant effect on life satisfaction within the sample. This implies that life satisfaction does not significantly vary across these age groups.

- **Interpretation of the gender hypothesis**

The gender coefficient is -0.131 with a p-value of 0.672, indicating that gender (being female compared to male) does not have a statistically significant effect on life satisfaction. As the p-value is much greater than 0.05, we fail to reject the null hypothesis, suggesting that there is no significant difference in life satisfaction between male and female respondents. This result implies that, within this sample, gender does not play a meaningful role in predicting life satisfaction.

- **Interpretation of the location hypothesis**

The coefficients for location are 0.826 for urban versus rural ($p = 0.207$) and 0.975 for semi-urban versus rural ($p = 0.258$). Both p-values exceed 0.05, indicating that the differences in life satisfaction between individuals living in urban or semi-urban areas compared to those in rural areas are not statistically significant. Consequently, we fail to reject the null hypothesis for location, suggesting that living environment (urban, semi-urban, or rural) does not have a significant impact on life satisfaction in this study.

- **Interpretation of the education hypothesis**

The education level coefficients indicate that having a bachelor's degree (compared to high school) has a coefficient of 0.111 with a p-value of 0.794, while a master's degree has a

coefficient of 0.946 with a p-value of 0.250. The results for a doctorate degree are not available (NaN values). None of the coefficients for education levels are statistically significant at the 0.05 level. Thus, we fail to reject the null hypothesis for education, suggesting that different levels of educational attainment do not have a significant effect on life satisfaction in this sample. This finding implies that life satisfaction does not differ substantially based on educational qualifications.

Discussion

The findings of this study provide valuable insights into the complex relationships between happiness, life satisfaction, and various sociodemographic factors such as age, gender, location, and education. The linear regression analysis reveals that happiness is a significant positive predictor of life satisfaction, emphasizing the strong association between emotional well-being and an individual's overall assessment of their quality of life. This result aligns with existing literature that identifies happiness as a critical component of life satisfaction, supporting the notion that positive psychological states are foundational for a fulfilling life.

Interestingly, the analysis shows that sociodemographic factors, such as age, gender, location, and educational attainment, do not significantly influence life satisfaction. For instance, age groups ranging from young adults to older individuals do not display significant differences in life satisfaction, contradicting some previous studies that suggest life satisfaction fluctuates with age due to changing life circumstances. Similarly, gender and location (urban, semi-urban, rural) do not exhibit significant effects, which implies that these factors may have less influence on life satisfaction than previously thought, at least within this sample. The lack of significant results for educational attainment suggests that formal education levels may not directly impact how satisfied individuals feel with their lives. These findings highlight the need for a more nuanced understanding of how structural and societal factors interact with psychological well-being.

The exploratory factor analysis provided additional insights, identifying two distinct factors that group the measured items. Factor 1 appears to capture the essence of positive psychological constructs, such as happiness and life satisfaction, while Factor 2 encompasses demographic variables like gender and educational attainment. The item loadings and uniqueness values indicate areas where the scale could be refined, particularly where items exhibit low loadings or

high uniqueness. For example, HP4 displayed a weak relationship with the other items, suggesting it may not adequately represent the underlying construct and could be revised or removed to improve the scale's reliability.

Conclusion

In conclusion, this study underscores the significant impact of happiness on life satisfaction, affirming the critical role of positive psychological states in promoting well-being. While happiness emerged as a key predictor, the sociodemographic factors of age, gender, location, and education did not significantly influence life satisfaction within the sampled population. These results suggest that interventions aimed at improving life satisfaction should focus more on fostering happiness and emotional well-being rather than targeting demographic characteristics. Furthermore, the scale reliability and factor analysis highlight the robustness of the research instrument while also pointing out areas for improvement, particularly concerning items with weaker loadings.

The study's findings have implications for both theoretical and practical approaches to understanding life satisfaction. From a theoretical perspective, the results challenge some commonly held assumptions about the impact of demographic factors on well-being, suggesting the need for more research that considers psychological states as primary drivers of life satisfaction. Practically, the research emphasizes the importance of initiatives that promote happiness, such as positive psychology interventions and well-being programs, as effective strategies for enhancing life satisfaction.

Recommendation

Focus on Psychological Interventions: Given the significant impact of happiness on life satisfaction, policymakers, educators, and health practitioners should prioritize psychological interventions that promote positive emotions and mental well-being. Programs that encourage mindfulness, gratitude, and social engagement can be effective in fostering happiness.

1. Scale Refinement: Future research should consider refining the research instrument by addressing items with low factor loadings or high uniqueness values. This can be achieved through further item analysis and validation studies, ensuring the scale accurately captures the constructs of happiness and life satisfaction.
2. Longitudinal Research: To establish causality and better understand the dynamics between life satisfaction, happiness, and sociodemographic factors, future studies should adopt longitudinal designs. This approach would allow researchers to observe changes over time and provide more conclusive evidence on how these variables interact.
3. Broader and More Diverse Samples: The generalizability of the findings could be enhanced by including more diverse populations across different cultural and socioeconomic backgrounds. Expanding the study to various regions and communities would offer a more comprehensive understanding of the factors influencing life satisfaction.
4. Addressing Societal Factors: Although demographic variables did not show significant effects in this study, it is still essential to investigate how societal and environmental factors influence well-being. Research should explore indirect pathways through which these factors may impact happiness and life satisfaction, such as through social support and community resources.

References

- [1] An, H.-Y., Chen, W., Wang, C.-W., Yang, H.-F., Huang, W.-T., & Fan, S.-Y. (2020). The relationships between physical activity and life satisfaction and happiness among young, middle-aged, and older adults. *International Journal of Environmental Research and Public Health*, 17(13), 4817.
- [2] Çakır, V. O., & Demirel, D. H. (2019). A student-oriented study: Analyzing the relationship between happiness and satisfaction with life. *Journal of Educational Issues*, 5(1), 150-161.
- [3] Haybron, D. M. (2001). *Happiness and the importance of life satisfaction*. Unpublished manuscript, Department of Philosophy, University of Arizona.

- [4] Kaliterna Lipovcan, L. J., Prizmic Larsen, Z., & Zganec, N. (2004). Quality of life, life satisfaction, and happiness in shift- and non-shiftworkers. *Revista de Saúde Pública*, 38(1), 3-10.
- [5] Kaushik, G., & Babu, K. N. (2021). Happiness, life satisfaction and self-esteem among urban university students. *International Journal of Indian Psychology*, 9(2), 36-44.
- [6] Nemati, S., & Maralani, F. M. (2016). The relationship between life satisfaction and happiness: The mediating role of resiliency. *International Journal of Psychological Studies*, 8(3), 194–201.
- [7] Ng, Y.-K. (2022). *Happiness or life satisfaction?*. In *Happiness—Concept, Measurement and Promotion* (pp. 33–39).
- [8] Ngamaba, K. H., & Soni, D. (2017). Are happiness and life satisfaction different across religious groups? Exploring determinants of happiness and life satisfaction. *Journal of Religion and Health*, 57(5), 2118-2139.
- [9] R Core Team (2021). *R: A Language and environment for statistical computing*. (Version 4.1) [Computer software]. Retrieved from <https://cran.r-project.org>. (R packages retrieved from MRAN snapshot 2022-01-01).
- [10] Revelle, W. (2019). *psych: Procedures for Psychological, Psychometric, and Personality Research*. [R package]. Retrieved from <https://cran.r-project.org/package=psych>.
- [11] Seo, E. H., Kim, S.-G., Kim, S. H., Kim, J. H., Park, J. H., & Yoon, H.-J. (2018). Life satisfaction and happiness associated with depressive symptoms among university students: A cross-sectional study in Korea. *Annals of General Psychiatry*, 17(52).
- [12] Štreimikienė, D., & Grundey, D. (2009). Life satisfaction and happiness: The factors in work performance. *Economics & Sociology*, 2(1), 9-26.
- [13] The jamovi project (2022). *jamovi*. (Version 2.3) [Computer Software]. Retrieved from <https://www.jamovi.org>.