

A Study on Psychological Well-Being and Life Satisfaction of Software Employees

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Abstract

The present study is aimed at investigating The Psychological well-being and Life satisfaction of Software employees. The sample of this Quantitative research study comprises of Software employees working in Software Organization. Convenient sampling is used for collection of data from 102 software employees. The software employees were assessed on Psychological well-being using Psychological well-being scale developed by Ryff (1989) and Satisfaction with Life scale obtained from Prof. Ed Diener. Diener, E., Emmons, R.A., Larsen, R.J. & Griffin, S. (1985). These standardized tools have height reliability and validity. The study design used for this study is a cross-sectional correlational method. This research aims to uncover specific challenges faced by men and women in the workplace that impact their psychological well-being and life satisfaction. Understanding these differences can help in designing targeted interventions to address well-being issues. Through an analysis of the ways in which work affects life happiness and psychological health at work, the research can provide important information for efforts promoting well-being. It can support efforts to create more fair possibilities for job growth and professional development by assisting in the identification of Prejudices and impediments that affect men and women differently.

INTRODUCTION

The software industry, characterized by high demands, rapid technological changes, and significant cognitive workloads, poses unique challenges to employees' mental health and overall life satisfaction. The dynamic nature of work environments, particularly for the software employees, has made psychological well-being and life satisfaction an important area of study.

“Psychological wellbeing is an evaluation of a person’s performance along multiple significant but interlinked extents and includes global, physical, and mental health” (Ryff et al, 1995). Psychological Well-being scale involves work-life balance, stress management, a sense of success, fulfilment from work, a positive rapport with co-workers, and the capacity to handle obstacles at work. Sustaining a psychologically sound state is essential for achieving maximum efficiency, output, and job satisfaction. Software employees' psychological well-being is significant, regarding their emotional and mental states in relation to their job life. (Sabu, S., & Majeed, J., 2022, April 27).

Life satisfaction refers to a conscious cognitive appraisal of one's life (Pavot & Diener, 1993). It is usually considered a global assessment of how satisfied a person is with his or her overall life conditions.

There is a continuing need for qualified experts in the fiercely competitive software sector.

Key factors influencing employee retention and recruitment include psychological well-being and overall life satisfaction. Software employees often face challenges in achieving a healthy work-life balance due to long working hours and the blurred boundaries between work and personal life, especially with remote work arrangements. Examining how these factors impact psychological well-being and life satisfaction helps in developing strategies to promote a better balance, such as flexible working hours, remote work

options, and supportive leave policies. Organizations can detect possible health concerns and establish wellness programs to proactively address these issues by examining psychological well-being and life satisfaction. This lowers healthcare expenses and absenteeism in addition to raising the standard of living for workers.

Research in this area helps organizations develop strategies to improve work conditions, support mental health, and enhance life as well as job satisfaction, ultimately benefiting both employees and employers.

This research aims to uncover specific challenges faced by men and women in the workplace that impact their psychological well-being and life satisfaction. Understanding these differences can help in designing targeted interventions to address age and gender-specific issues.

In 2022, Matud, Bethencourt, Ibáñez, de Fortes, and Díaz conducted a study titled *Gender Differences in Psychological Well-Being in Emerging Adulthood*. Their research revealed that gender significantly influences psychological well-being during emerging adulthood. Specifically, the study identified self-esteem and instrumental social support as key predictors of psychological well-being for both men and women.

In 2018, Joshanloo conducted a study titled *Gender Differences in the Predictors of Life Satisfaction Across 150 Nations*. The research found that men's life satisfaction is more strongly influenced by socio-political, employment, and educational factors, whereas women's life satisfaction is more significantly impacted by marital status and interpersonal relationships.

In 2017, Bai, Guo, and Fu conducted a study titled *Self-Image and Intergenerational Relationships as Correlates of Life Satisfaction in Chinese Older Adults: Will Gender Make a Difference?*. Their findings indicated that self-image and intergenerational relationships have a significant impact on life satisfaction among older adults. Additionally, the study revealed notable gender differences in the correlates of life satisfaction.

In 2005, van Daalen, Sanders, and Willemsen conducted a study titled *Sources of Social Support as Predictors of Health, Psychological Well-Being, and Life Satisfaction Among Dutch Male and Female Dual-Earners*. The findings revealed that men report better health and psychological well-being compared to women, while women report higher life satisfaction. Additionally, the study found that sources of social support do not account for these observed gender differences.

In 1992, Mills conducted a study titled *The Effects of Gender, Family Satisfaction, and Economic Strain on Psychological Well-Being*. The research found that family satisfaction has a more pronounced positive effect on psychological well-being for women compared to men. Conversely, economic strain was found to have a similarly negative impact on psychological well-being for both genders.

AIM

The aim of the research is to Study the Psychological Well-being and Life Satisfaction of Software Employees.

OBJECTIVES

- To assess the psychological well-being of Software employees
- To assess the life satisfaction of Software employees
- To assess the influence of gender and age on Psychological Well-being and Life Satisfaction in workplace.
- To find the relationship between Psychological Well-being and Life Satisfaction among Software Employees.

HYPOTHESES

H1-

There would be significant relationship between Psychological Well-being and Life Satisfaction among Software Employees.

H2-

There will be a significant difference in Psychological Well-being and Life Satisfaction with reference to age and gender.

MATERIALS AND METHODS

PARTICIPANTS -

The research took place on total sample of 102, Software Employees comprising 76 males and 26 females in the age range of 21 to 64 years with varied work experience and income.

SAMPLING TECHNIQUE-

For this study, the convenience sampling method is used.

INCLUSION CRITERIA-

- Working adults of age 21 to 64 years.
- Research study will include individuals who are employed as software professionals, and have a minimum of one year of experience in the software industry.

EXCLUSION CRITERIA-

- Individuals with any known mental health conditions.
- Individuals with any known physical health problems.

TOOLS USED

The Psychological Well-Being Scale (PWBS), developed by Carol Ryff in 1989, evaluates dimensions such as self-acceptance, positive relationships, independence, and mastery of the environment, life's purpose, and personal development. The short version of Ryff's PWB has 21 items; each dimension of well-being has 3 items. The PWB has shown good construct validity, with research supporting its six-factor structure. Studies demonstrate that it correlates well with related constructs like life satisfaction and mental health indicators. The PWB demonstrates good internal consistency (Cronbach's alpha typically ranging from 0.7 to 0.9) for the short and long versions. Test-retest reliability has also been supported in various studies. Items are rated on a 6-point Likert scale (ranging from strongly disagree to strongly agree). Scores for each of the six dimensions are calculated by averaging the responses to the items corresponding to each dimension. Higher scores indicate higher well-being in that dimension.

The Satisfaction with Life Scale (SWLS), created by Ed Diener in 1985, measures overall life satisfaction. Participants rate these items from 1 (strongly disagree) to 7 (strongly agree), with higher scores reflecting greater life satisfaction. The scale has 5 items. It shows strong construct validity and good convergent validity, as it correlates well with other subjective well-being measures. The scale has high internal consistency, with Cronbach's alpha often reported around 0.80 to 0.90. Test-retest reliability has also been shown to be strong, indicating that the scale provides stable results over time. A seven-point Likert scale is used to score each item (1 being strongly disagreed and 7 being strongly agreed). The overall score falls between 5 and 35. Scores between 31 to 35 indicate extremely satisfied with life. Scores between 20 to 24 indicate average satisfaction. Scores below 9 suggest extreme dissatisfaction with life.

DATA ANALYSIS

Statistical analysis was done to find the Mean, Standard deviation, Frequency and Correlation.

RESULTS

The demographic characteristics of the participants, including gender, marital status, age, and monthly income, are presented in Table 1.

[Table 1 near here]

Table 1
Demographic characteristics of the participants

S.No	Category		Frequency (N)	Percentage (%)
1	Gender	Male	76	75
		Female	26	25
2	Marital Status	Married	68	67
		Single	34	33
3	Age	21–30	31	30.4
		31–40	27	26.5
		41–50	29	28.4
		51–60	10	9.8
		61–70	1	1.0
4	Monthly Income	≤ 50000	27	26.5
		50001–100000	12	11.8
		100001–200000	34	33.3
		≥ 200001	29	28.4

Sample Description:

The sample consists of 102 participants with a majority being male, 75.0% and the remaining 25.0% female. In terms of the marital status, two-thirds of the participants are married (67.0%) whereas one-third of the participants are single (33.0%). The participants were divided based on the age group of 21 to 30 years (30.4%), 31 to 40 years (26.5%), 41 to 50 years (28.4%), 51 to 60 years (9.8%) and 61 to 70 years (1.0%). In terms of monthly income, the category of divisions were “50,000 or below” (26.5%), “50,001 to 1, 00,000” (11.8%), “1, 00,001 to 2, 00,000” (33.3%) and “2, 00,001 and above” (28.4%).

The distribution of participants across the different levels of psychological well-being and life satisfaction is presented in Table 2.

[Table 2 near here]

Table 2
The prevalence of psychological well-being and life satisfaction scales.

Scale	Category	Score Range	Frequency	Percentage
Psychological Well-Being	Low Well-Being	21–42	1	1.0
	Moderate Well-Being	43–84	83	81.37
	High Well-Being	85–126	18	17.65
Satisfaction with Life	Low Satisfaction	5–15	8	7.84
	Medium Satisfaction	16–25	47	46.08
	High Satisfaction	26–35	47	46.08

For a prevalence table based on Ryff's Psychological Well-Being Scale (short form with 21 questions) and the Satisfaction with Life Scale (with 5 questions), the scores can be divided into categories to reflect different levels of psychological well-being and life satisfaction. For the Psychological Well-being scale, the total score ranges from 21 (minimum) to 126 (maximum), Low Well-being ranging from 21 to 42 (1%), Moderate Well-being ranging from 43 to 84 (81.37%) and High Well-being ranging from 85 to 126 (17.65%). In terms of the Satisfaction with Life Scale we have the Low Satisfaction ranging from 5 to 15 (7.84%), Medium Satisfaction ranging from 16 to 25 (46.08%) and High Satisfaction ranging from 26 to 35 (46.08%). Frequency shows how many respondents fall into each score range. Percentage represents the proportion of respondents within each category relative to the total sample. This table format helps in visualizing the distribution of psychological well-being and life satisfaction within a sample population of 102 software employees.

The correlation between psychological well-being and life satisfaction among software employees is presented in Table 3.

[Table 3 near here]

Table 3
Correlation between Psychological Well-being and Life Satisfaction of Software Employees

		Satisfaction with Life Scale	Psychological Well-being Scale
Satisfaction with Life Scale	Pearson Correlation	1	.259"
	Sig. (2-tailed)		0.009
	N	102	102
Psychological Well-being Scale	Pearson Correlation	.259"	1
	Sig. (2-tailed)	0.009	
	N	102	102

The table indicates a positive correlation between psychological well-being and life satisfaction, implying that as psychological well-being improves, so does life satisfaction. The correlation value of 0.259, calculated using 102 data points, indicates a moderately positive association between the two variables. This suggests that higher levels of psychological well-being correlate with greater life satisfaction. The value of 0.009 likely refers to a p-value, which indicates the correlation is statistically significant, supporting the reliability of this positive association.

The correlation between age and psychological well-being among software employees is presented in Table 4.

[Table 4 near here]

Table 4 Correlation between age and psychological well-being

Spearman's rho			Age	Psychological Well-being Scale
	Age	Pearson Correlation	1.000	0.029
		Sig. (2-tailed)		0.769
		N	102	102
	Psychological Well-being Scale	Pearson Correlation	0.029	1.000
		Sig. (2-tailed)	0.769	
		N	102	102

The provided table presents the results of Spearman's rank correlation analysis between Age and Psychological Well-Being. Correlation Coefficient (0.029) value indicates a very weak positive correlation between age and psychological well-being scores. The analysis shows that there is no significant relationship between age and psychological well-being.

The correlation between age and life satisfaction among software employees is presented in Table 5.

[Table 5 near here]

Table 5
Correlation between age and life satisfaction

		Age	Satisfaction with Life Scale
Age	Pearson Correlation	1	0.015
	Sig. (2-tailed)		0.878
	N	102	102
Satisfaction with Life Scale	Pearson Correlation	0.015	1
	Sig. (2-tailed)	0.878	
	N	102	102

The table provides the results of Pearson's correlation analysis between Age and Life Satisfaction. The results indicate that in these individuals, there is no observable relationship between life satisfaction and age. Both the high p-value and the extremely low correlation coefficient (0.015) indicate the lack of a significant relationship between age and life satisfaction.

The mean and standard deviation of psychological well-being and life satisfaction scores by gender are presented in Table 6.

[Table 6 near here]

Table 6
Correlation analysis between Gender and Psychological well-being, as well as Life Satisfaction respectively.

Gender		N	Mean	Std. Deviation
Psychological Well-being Scale	Male	76	77.39	8.22
	Female	26	81.00	14.33
Satisfaction with Life Scale	Male	76	24.34	5.88
	Female	26	24.00	6.35

The analysis reveals gender differences in both psychological well-being scale and life satisfaction. Females have a higher mean score for psychological well-being (81.00) compared to males (77.39), suggesting that, on average, females report better psychological well-being. In contrast, life satisfaction scores are nearly identical between genders, with males scoring slightly higher (24.34) than females (24.00), and with comparable variability. These findings suggest that while psychological well-being may be higher for females, life satisfaction remains consistent across genders.

DISCUSSION

The well-being of software professionals is notably influenced by high job demands and stress, paralleling trends seen in other high-stress fields. The ways that job control and work environment affect psychological well-being are highlighted by Ryff's dimensions of autonomy and environmental mastery. Diener's Satisfaction with Life Scale (1985) helps explain how job satisfaction affects overall life contentment. The study confirms that work-related factors significantly influence life satisfaction among software employees, reinforcing the close link between job satisfaction and life satisfaction. Joshanloo (2018) noted that while marital status and relationships more greatly affect women's life satisfaction, socio-political, employment, and educational factors are crucial for men.

The study highlights that targeted interventions can significantly enhance the psychological well-being and life satisfaction of software employees. Ryff's and Diener's validated approaches bolster the study's credibility. Aligning with van Daalen et al. (2005), which found social support and family satisfaction impact well-being, the research emphasizes job satisfaction as a key predictor of life satisfaction. It further explores how specific work-related stressors and support systems affect psychological outcomes.

However, the study highlighted some issues, such as the lack of comprehensive support systems and the increased stress levels faced by software employees. These findings highlight the drawbacks of current support networks and highlight concerns raised by Mills (1992), who discovered that financial stress had a negative impact on psychological health in both genders.

CONCLUSION

The correlational research study concluded that psychological well-being and life satisfaction among software employees differ significantly across age groups and genders. The results suggest that while psychological well-being may be higher for females, life satisfaction remains consistent across genders. These findings imply the need for specific approaches to address the various issues that different populations encounter in the software industry, with an objective of enhancing overall mental health and satisfaction with work.

LIMITATIONS

- The study may have limitations related to the sample size

- The results might differ based on the Work settings.
- The study focused on a particular age group – 21 to 64 years.

IMPLICATIONS

A study of the psychological well-being and life satisfaction of software employees aged 21 to 64 who have at least one year of work experience provides important insights about their mental health condition. The findings show that, despite the industry's typically high-pressure atmosphere, employees had moderate to high levels of life satisfaction, with differences depending on gender, work experience, and age. Improved work-life balance initiatives, flexible working arrangements, and targeted mental health resources have all been related to increased well-being. However, challenges such as anxiety and stress continue to exist, affecting some demographics disproportionately. The study emphasizes the importance of continuing to focus on tailored support systems and workplace modifications in order to improve mental health outcomes across varied employee populations.

SCOPE FOR FURTHER RESEARCH

- Longitudinal Analysis of Psychological Well-Being and Life Satisfaction
- Interaction of Personal Life Stressors and Work-Related Factors
- Effectiveness of Well-Being Interventions and Support Programs
- Cultural and Regional Variations

DECLARATIONS

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The study was approved by the Institutional Ethics Committee, SRM Medical College Hospital and Research Centre, with ethics approval reference number “SRMIEC-ST0724-1431.”

The study was conducted in accordance with relevant ethical guidelines and regulations, including the principles of the Declaration of Helsinki.

The study was conducted as an online questionnaire-based survey. Informed consent to participate was obtained electronically from all participants prior to completion of the online questionnaire. Participation was voluntary, and participants were informed about the purpose of the study, confidentiality of their responses, and their right to withdraw from participation.

CONSENT FOR PUBLICATION

Not Applicable.

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Author Contribution

I.B. contributed to all aspects of the study and manuscript preparation, including conceptualisation, literature review, methodology, data collection, data analysis, interpretation of findings, and writing and revision of the manuscript. S.S.B. and G.P. provided academic guidance and supervision throughout the research process and manuscript preparation. All authors reviewed and approved the final manuscript.

DATA AVAILABILITY

The datasets generated and/or analysed during the current study are available from the corresponding author on reasonable request.

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