Research Paper

Burnout, Work-Life Balance and Job Satisfaction Among Software Developers

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ABSTRACT

The main aim of the study was to assess the relationship between burnout, work-life balance and job satisfaction among software developers. It aims to also indicate significant differences, if any, among the different kinds of gender and work models. The study was carried out through an online survey and 130 responses were collected from full time software developers working in India. Oldenburg Burnout Inventory, Job Satisfaction Scale and Work Life Balance Inventory were the tools used to assess these variables. Pearson's Correlation was employed to study the relation between burnout and job satisfaction, and work life balance and job satisfaction. Additionally, Independent Samples T-test and One Way ANOVA were used to assess the differences within gender and the work models (WFO, WFH and Hybrid). The findings of the study revealed that there is a moderate negative correlation between burnout and job satisfaction. The study's findings also indicated that there is a weak positive correlation between work life balance and job satisfaction. Additionally, there were no significant differences due to gender and work models among software developers on the three variables.

Keywords: *Burnout, Work-Life Balance, Job Satisfaction, Software Developers, Work Models*

Herbert Freudenberger originally used the term "burnout" in 1974 after he noticed volunteers at a mental health clinic losing enthusiasm and losing their commitment (Dall'Ora et al., 2020). Burnout, according to him, is the loss of motivation or incentive when one's commitment to a cause or relationship does not result in the intended outcomes. In the 1980s, Christina Maslach conducted additional research on this topic and characterised burnout as a psychological disorder that developed as an extended response to ongoing interpersonal pressures at work. According to Maslach & Leiter in 2016, burnout is a reaction to three main dimensions: extreme weariness, emotions of cynicism and alienation from the profession, as well as a sense of ineffectiveness and lack of accomplishment.

The initial research was exploratory and mostly used qualitative methods. Since the original researchers had backgrounds in clinical or social psychology, they were more drawn to issues that were pertinent to these domains, such as motivation and emotion. Later scholars

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in industrial and organisational psychology used their understanding of workplace attitudes and behaviour to conceptualise burnout as the response to persistent work-related stress (Maslach & Leiter, 2016).

The three dimensions of burnout were developed from this early descriptive study. Wearing out, losing energy, being depleted, and exhaustion were other terms used to represent the emotional aspects. Cynicism or depersonalization was sometimes referred to as having an unfavourable or unsuitable attitude towards clients, being irritable, losing one's idealistic outlook, and withdrawing. lower productivity, low morale, and an inability to cope were also used to describe the inefficacy dimension or lower personal accomplishment dimension (Maslach & Leiter, 2016). These three dimensions was extensively studied by Maslach and her colleagues and led to the development of the Maslach's Burnout Inventory (MBI) in 1981 to assess an individual's level of occupational burnout which is still considered as the gold standard today.

As we enter 2023, burnout today is not just prevalent in the service sector but in all kinds of work. Today, burnout is just a part of the job for anybody working in the IT sector but the effects of intense burnout among these employees has led to an increase in employees taking sick leaves and even quitting their jobs unable to balance their lives. After the advent of Covid and many companies switching to a work from home or hybrid model of work, a lot of IT employees have struggled to deal with the new challenges of working away from office and suffer from burnout. One of the worst hit categories of employees are software developers who generally have an increased workload and deadlines to meet which results in them putting in long hours and constant stress to meet their goals leaving them at risk to burnout (Wigert & Agrawal, 2018).

According to a report from 2018, employee burnout in the business sector has reportedly been linked to unreasonable time constraints, a lack of management support or communication, a lack of role clarity, an unmanageable workload, and unfair employee treatment. All these factors together can have a snowball effect on these software developers as they try to balance all these challenges at work and fall behind trying to do so. Combining this with the challenges of working from a remote location makes software developers at a high risk of suffering from burnout. Burnout if left unidentified among employees can lead to alienation from work related activities to a point where the employees might feel numb from work. It can also lead to emotional exhaustion leaving them emotionally drained and unable to cope with challenges in their personal lives. Burnout also ultimately affects the performance of these employees both at work and at home leading to negative feelings, difficulty concentrating and even lack of creativity (Scott, 2022).

Thus, it is very important to understand the prevalence of burnout among software developers in India given they had to adapt due to the pandemic and to see how this is related to their job satisfaction and work life balance; two factors that plays a huge role in the mental health of an employee.

Although there isn't a single definition for "work-life balance," it is generally accepted that a person's life has two distinct domains: work and personal. These two areas need equal attention and investment, but not at the expense of one another. It is described as the degree of participation between the various roles in a person's life, particularly as they relate to employment and leisure activities, by the APA Dictionary of Psychology.

Today, work-family balance has evolved to work-life balance as it is not just couples with children who have responsibilities at home but any individual is required to meet certain responsibilities in their personal lives away from work. As the world began to move from blue collar jobs to white collar jobs, the factors affecting work-life balance also evolved. In corporate organisations, employees are required to work for even 12 hours in a day reducing the amount of time they get to spend at home. Due to these factors, it becomes difficult for an employee to allocate equal amounts of time for both work and home. This eventually leads to stress, impaired sleep, depression, diabetes, impaired memory and even heart diseases. Many corporate employees may even resort to smoking or heavy drinking to combat this imbalance eventually leading to addiction and poor physical and mental health.

While it was easier to differentiate work and personal life in the past it is not the same today (Nortje, 2021). With the rise of mobile technology, cloud-based software, and the increased use of the internet globally, it is much simpler for employees to just be permanently at work, blurring the line between professional and personal life. Employees in the tech industry, especially software developers, already had a difficult work-life balance due to their lengthy working hours and high workload-induced stress. As we move towards a more technologically advanced and connected world, the work schedule of employees, especially in the tech industry, has changed from a 9 to 5 workday to an overwhelming 24/7 job as employees are constantly required to be connected even after they have left the workplace for the day.

With the Covid-19 pandemic induced lockdowns, various software or tech companies introduced new ways to work from home leading to employees having to work at any time of the day based on the requirements of the organisation with no fixed time to spend at home. Employees in these tech companies like software or game developers were given the necessary infrastructure and technology needed to work from home and the post pandemic era has just taken forward these changes to new heights as the services offered by the internet has only gotten better. These changing work demands have made it much harder for employees to focus on a life outside of work. Work from home has blurred the lines between work and life, according to earlier studies on work-life balance during the pandemic. Studies have also highlighted the fact that a worker's ability to balance the two domains may vary depending on several variables, such as their workload, their family situation, and their unique abilities and talents (Weerarathna et al., 2022).

Especially with respect to software developers, work life balance becomes even more difficult as unlike the manufacturing industry where the employees need to be present in the industry to work, for software developers it is possible for them to work even away from office provided they have the necessary gadgets and internet connections. This makes it difficult for software developers to end work for the day as they would be required to continue work from home as well. Developers also experience a lack of control over their work environment such as being unable to influence deadlines or project requirements leading to burnout and imbalance in work and personal life. The lack of adequate support from the organisation can also be a cause of stress and anxiety in developers. Another cause of poor work life balance has been attributed to the monotonous type of work that is done by software developers which results in a lack of motivation and dissatisfaction towards their job.

According to a study conducted in Australia by Strazdins et al. in 2015, the availability of flexible employment options, such as working from home, has led to jobs where there are no

set hours or workload requirements for employees to complete. This makes it difficult for an employee to prioritize between work and personal life. Many employees also complain about how it becomes difficult to differentiate what is professional work and what is personal work as their workplace is the same due to work from home making it difficult to form a differentiation based on location. Software developers that work under such conditions become exhausted from lack of sleep and poor mental health. According to studies, working in these conditions for extended periods of time can affect an employee's job happiness, productivity, work-life balance, and even whether or not they decide to stay with the company.

A worker's attitude towards their job is described as job satisfaction by the APA Dictionary of Psychology. This attitude is frequently expressed as a hedonic response of liking or disliking the work itself, the benefits like pay, promotions, and recognition, or the context like working conditions and co-workers. It can also be used to express a worker's overall satisfaction and sense of fulfilment at work. It is crucial to employee well-being and is frequently linked to increased levels of dedication, motivation, and productivity at work.

Herzberg and colleagues discovered in 1959 that intrinsic and extrinsic workplace characteristics have different effects on job satisfaction. The intrinsic variables concern the worker's quest for self-actualization. and includes factors like responsibility, self-directiveness, skill development, feeling of belongingness, respect from co-workers, relationship with superiors, etc and extrinsic factors are the external factors like company policy, financial rewards and pay, workload, promotions, working environment, etc. All these factors combined affects the job satisfaction of a worker at their workplace.

Recent research shows that such factors influence the job satisfaction of software developers as well especially in the post pandemic era where a lot of factors influencing job satisfaction like work environment, interaction between employees, work timings, etc has seen drastic changes. Software developers continue to work in a hybrid model where they mostly work from home with a few select days in the office. While this was a welcome change during the pandemic it has eventually led to long work hours and never-ending meetings. Working remotely has also presented its challenges where it became more difficult to collaborate as a team, various distractions due to working from home, emotional issues and even poor equipment hindering productivity. At the same time various surveys have shown that some employees enjoyed the increased flexibility and focus that a hybrid model of work provided leading to better job satisfaction (Smite et al., 2022). However, due research is needed in an Indian context to understand the various factors that might have an influence on the job satisfaction of software developers post pandemic.

In order to determine the effects of gender and work-life balance on job satisfaction among IT and IT-ES personnel, Kanwar et al. (2009) evaluated 313 IT and IT-ES employees from New Delhi, India. To comprehend the study's data, t-test, regression, and correlation were used. The study's findings showed that while burnout was negatively correlated with job satisfaction, work-life balance was positively correlated with both. It also revealed that work-life balance made a substantial contribution to job satisfaction in both the IT and ITES sectors, but it was more prevalent among ITES personnel than IT ones. Additional study findings revealed that male participants had a higher level of job satisfaction than female participants.

Job satisfaction plays a key role in achieving work-life balance as well. Employees are more likely to be motivated and involved in their work and thus more productive and efficient when they are content with their jobs. This can therefore assist them in finishing their work quickly and lessen the requirement for overtime or additional hours. The additional time can then be used for personal or family activities, allowing workers to better balance their professional and personal lives. Employees who are unhappy at work, on the other hand, may feel overwhelmed, overworked, and unable to combine their work and personal obligations. This can lead to burnout and negative health outcomes, which can further reduce job satisfaction.

Need and Significance
Burnout, work-life balance, and job satisfaction have all historically been intriguing factors in the corporate world and an employee's working life. It has been proven in the past that burnout and work-life balance have a strong association with an employee's job satisfaction, but most studies have previously concentrated on workers in the corporate sector in general or on IT and IT-ES employees. Even when they have, studies on software engineers have generally been undertaken prior to the COVID-19 pandemic, thus they haven't been the main subject of many studies. With the onset of the pandemic, a lot has changed in terms of work for software developers as new modes of communications and work models were introduced to continue working from home or remotely without coming to office which are all factors that influence their work-life and levels of burnout. So, while the relationship between these variables is obvious in a general context, there is a need to study the relationship between these variables among software developers in the post pandemic era where a hybrid model of work continues. Also, most studies of the past have focused on corporate employees in the west and this limitation also increases the need for the study among an Indian population of software developers.

METHODOLOGY
Statement of the Problem
The present study was undertaken to understand the relationship between burnout, work life balance and job satisfaction among software developers. In addition, the study sought to identify differences in burnout, work-life balance and job satisfaction in gender and work model.

Objectives
- To examine the relationship between burnout and job satisfaction among software developers.
- To examine the relationship between work-life balance and job satisfaction among software developers.
- To determine the gender differences in burnout.
- To determine the gender differences in work-life balance.
- To determine the gender differences in job satisfaction.
- To determine if there are any differences in burnout based on work model.
- To determine if there are any differences in work-life balance based on work model.
- To determine if there are any differences in job satisfaction based on work model.

Hypotheses
H_{o1}- There is no significant relationship between burnout and job satisfaction among software developers.

H_{o2}- There is no significant relationship between work-life balance and job satisfaction among software developers.

H_{o3}- There is no significant difference in burnout based on gender of a software developer.

H_{o4}- There is no significant difference in work-life balance based on gender of a software developer.

H_{o5}- There is no significant difference in job satisfaction based on gender of a software developer.

H_{o6}- There is no significant difference in burnout based on work model of a software developer.

H_{o7}- There is no significant difference in work-life balance based on work model of a software developer.

H_{o8}- There is no significant difference in job satisfaction based on work model of a software developer.

Operational Definitions
1. **Burnout:** Burnout is described as a state of physical, emotional, and mental exhaustion caused by chronic work-related stress.
2. **Work-Life Balance:** Work-Life Balance refers to the amount of time and energy a person devotes to work and personal life.
3. **Job Satisfaction:** Job Satisfaction is defined as an individual's level of contentment and fulfilment with their job or career.

Research Design
The study followed a correlational design to assess the relationship between burnout, job satisfaction and work life balance among software developers working full time in India.

Sample and Sampling Techniques
The sample of the current study consisted of 130 software developers selected via purposive sampling. The data from the participants were collected via an online survey using Google forms.

Inclusion Criteria
- Software developers working full time roles in India
- At least 1 year of work experience.

Exclusion Criteria
- Individuals with psychological issues
- Software developers working abroad

Tools
1. *Oldenburg Burnout Inventory:* The Oldenburg Burnout Inventory is a psychological assessment instrument comprising 16 items pertaining to occupational burnout. The OLBI was developed by Demerouti et al. in 1999 as an alternative to counter the drawbacks of the Maslach Burnout Inventory (MBI) which is considered as the gold standard for measuring burnout. The OLBI is designed to be used with all kinds of occupational groups and assesses two core dimensions of burnout: exhaustion and disengagement (from work). There are 8 items for the exhaustion subscale and there are 8 items for the disengagement subscale. For both subscales, a 4-point scale is used with scores ranging from 1 to 4 and four items in each subscale are positively worded and 4

items are negatively worded. It is a self-administered test and summing up the scores from both subscales can yield a total score between 16 and 64 with higher scores indicating more burnout. The OLBI has been validated for several different populations and working groups over multiple languages including English and has a high reliability with a Cronbach Alpha of 0.63 for the overall scale with a Cronbach Alpha of 0.87 for exhaustion and a Cronbach Alpha of 0.81 for disengagement.

2. *Job Satisfaction Scale:* JSS developed by Singh and Sharma in 1986 consists of 30 statements on a 5-point scale based on intrinsic and extrinsic factors which is further divided into five factors: job concrete, job abstract, psychosocial, economic and community growth upon which the job satisfaction of employee depends upon. Job concrete and job abstract falls under intrinsic factors while psychosocial, economic and community growth falls under extrinsic factors. The scale is usually responded to by employees within 10 minutes and the total score gives a measure of the degree of satisfaction or dissatisfaction of an employee towards their job. The higher the overall score the higher the level of job satisfaction.

3. *Work-Life Balance Inventory:* It is a 15-item scale adapted by Hayman (2005) designed to assess 3 dimensions of work life balance: Work interference with personal life (7 items), personal life interference with work (4 items) and work/personal life enhancement (4 items). It is based on a 5-point Likert scale. The scoring is done with 5 for strongly agree and 1 for strongly disagree except for item 7 which is reverse scored. High score indicates high work/ personal life enhancement and this is associated with higher levels of work life balance. The scale has been tested for reliability under Indian conditions and the Cronbach Alpha was found to be 0.87

Procedure of Study

Approval was taken from the college and guide before commencing the study. Informed consent was taken from the participants who volunteered to take part in the study and the data collected was kept confidential. No sensitive data was collected to maintain anonymity of the participants. The data for the research study was collected from software developers who were employed full time and had at least 1 year of work experience in India. The collection of data used Google Forms, which was created and circulated. The form contained the basic details, the Oldenburg Burnout Inventory, the Job Satisfaction Scale and the Work Life Balance Inventory. There were 69 questions, including 61 questions from the questionnaires, OLBI (16), JSS (30) and WLBI (15), and eight questions to collect the sociodemographic details. The form takes 10-15 minutes to respond to. The data collection was followed by analysis using the IBM SPSS software.

Ethical Considerations

The respondents' names were not collected, thus maintaining their anonymity. Participants also received an explanation of the purpose of the study, "Burnout, Work Life Balance and Job Satisfaction Among Software Developers" and informed consent was taken. No potential dangers or risks were involved with the study as all data was collected through an online form, which did not collect any sensitive data including their email IDs.

Statistical Analysis

The data was tested for normalcy using the Kolmogorov-Smirnov test and then analyzed using Pearson's correlation, Independent Samples T-test and One Way ANOVA.

RESULTS AND DISCUSSION

Demographic Details of the Participants

The sample of the current study comprised of 130 software developers working full time in India. It consisted of 55 males, 71 females and 4 individuals who preferred not to reveal their gender. The sample consisted of 10 software developers who were working from office, 45 software developers who were working from home and 75 software developers who were working in a hybrid work model.

Preliminary Analysis

The present study investigated the relationship between burnout, job satisfaction and work-life balance among software developers. The study also investigated the differences between gender and work models.

According to the normalcy test of Kolmogorov-Smirnov, it was found that the data was normally distributed. Due to this, parametric tests were used for the data analysis.

Analysis and Interpretation

Table 1 Relationship Between Burnout and Job Satisfaction Among Software Developers

Variables	M	SD	1	2
Burnout	37.61	6.118	-	-.633**
Job Satisfaction	72.13	11.860	-.633**	-

**Correlation is significant at the 0.01 level (2-tailed)

Table 1 displays the relationship between burnout and job satisfaction among software developers. The relationship was found to be moderately negative and statistically significant ($r = -.633$, $p<.005$). Hence, H_{01} was rejected. Additionally, it signifies that if burnout increases then there would be a decrease in job satisfaction. This result was in line with studies such as that of Kanwar et al. (2009), who was able to find that burnout shared a significant negative relationship with job satisfaction.

According to Ed-Valsania et al. (2022), burnout syndrome is a person's reaction to work-related stress that progresses over time and might eventually turn chronic, causing changes to one's health. Burnout can cause harm on a cognitive, emotional, and attitudinal level, which leads to bad behaviour towards work, peers, and the professional job itself. This is especially true from a psychological perspective. Factors like work overload, emotional labour, ambiguity and role conflict, poor working hours, lack of social support can all lead to burnout in individuals (Singh et al., 2011). These factors are constantly experienced by software developers leading to higher burnout in this population which can greatly affect their overall work performance. Johnson et al. (2021) even identified that job satisfaction was positively correlated to productivity among software engineers thus making job satisfaction a crucial factor of work productivity. By understanding the role that burnout plays in job satisfaction companies can introduce new practices and changes to reduce the burnout suffered by their employees and achieve a thriving workplace.

Table 2 Relationship Between Work-life Balance and Job Satisfaction Among Software Developers

Variables	M	SD	1	2
Work Life Balance	40.39	7.115	-	.439**
Job Satisfaction	72.13	11.860	.439**	-

**Correlation is significant at the 0.01 level (2-tailed)

Table 2 displays the relationship between work-life balance and job satisfaction among software developers. The relationship was found to be low positive and statistically significant (r = .439, p<.005). Hence, H_{02} was rejected. Additionally, it signifies that if work-life balance increases then there would be an increase in job satisfaction. These findings match with the previous findings by Haar et al. (2014) who studied work-life balance and job satisfaction across seven different cultures and concluded that work life balance was positively correlated with job satisfaction.

With the beginning of the pandemic and with the introduction of remote work, the work life balance of IT and non-IT employees have changed in numerous ways (Pathak et al., 2021). While remote work provided benefits like reduced commuting time and increased flexibility it also led to several challenges like blurring of work and personal boundaries, increased workload and lack of separation between work and home life. All these factors were crucial determinants of work life balance during the pandemic. Especially for software developers it is harder to achieve work life balance as they are required to work long hours and sometimes their clients could be from developed nations and thus would require them to work odd hours to match their time zones severely affecting work life balance (Kanwar et al., 2009). By understanding that work-life balance is a significant determinant of job satisfaction, organisations and companies can incorporate new policies and practices to improve the work-life balance of their employees and foster better relationships with their employees.

Table 3 Gender difference in Burnout

Variables	Males (55)		Females (71)		
	M	SD	M	SD	t
Burnout	36.78	6.297	38.03	5.950	-1.137

p>.05

Table 3 displays the gender difference in burnout. The test revealed that there was no significant difference between the two groups, t(124) = -1.137, p = .258. Hence, H_{03} was accepted as the p-value was found to be greater than .05 and gender variations in burnout was found to be not significant. The results align with the findings of Kanwar et al. (2009) who also found that there was no significant difference between burnout among males and females. The plausible explanation to this is that both men and women have the same kind of work load and work expectations from their jobs as software developers.

However, the results differed from the study conducted by Tarcan et al. (2016) who stated that there is indeed a significant difference in burnout among gender but this study was conducted among healthcare professionals. The study associated such a significant difference with the marital status of the sample population stating that the employees who were single did not experience such a significant difference when compared to employees who were married indicating that marriage responsibilities could have been a reason for higher burnout in women. The burnout experienced by men and women are similar but the factors behind it could be different. Men are more likely to be more focused at work and would stretch themselves out too hard but at the same time women must focus on their chores at home as well leading them to balance both job and household work at the same time.

Table 4 Gender difference in Work-life Balance

Variables	Males (55)		Females (71)		
	M	SD	M	SD	t
Work Life Balance	40.75	7.263	39.94	7.117	.622

p>.05

Table 4 displays the gender difference in work-life balance. The test revealed that there was no significant difference between the two groups, t(124) = .622, p = .535. Hence, H_{04} was accepted as the p-value was found to be greater than .05 and gender variations in work-life balance was found to be not significant. These results are in line with the findings of Kanwar et al. (2009) who also identified that there is no significant difference in work-life balance between males and females. A study by Pace and Sciotto (2021) disagreed with the findings of this study as they identified that there is a significant difference due to gender among health care professionals.

The results imply that both men and women were able to equally balance their work lives and personal lives. There might be a difference in work-life balance among other professionals but studies show that among IT employees and software developers there is no significant difference. This could be because the work load for software developers is the same regardless of gender and so are the work timings.

Table 5 Gender difference in Job Satisfaction

Variables	Males (55)		Females (71)		
	M	SD	M	SD	t
Job Satisfaction	72.89	12.357	71.63	11.609	.586

p>.05

Table 5 displays the gender difference in job satisfaction. The test revealed that there was no significant difference between the two groups, t(124) = .586, p = .559. Hence, H_{05} was accepted as the p-value was found to be greater than .05 and gender variations in job satisfaction was found to be not significant. These findings did not align with the results of Kanwar et al. (2009) who identified that only job satisfaction had a significant difference in gender. According to his study, men had more job satisfaction and this was presumed to be because men prioritised work and it was central to their lives compared to women who also prioritised their families.

However, Tarcan et al. (2016) identified in their study that while there were differences in gender for burnout, there was no significant difference in job satisfaction due to gender among healthcare professionals. These findings align with the results of this study and it can be presumed that both genders may have different work orientations but there is no significant difference in job satisfaction due to gender among software developers.

Table 6 Difference in Burnout based on Work Model

Variables	Work From Office (10)		Work From Home (45)		Hybrid (75)		
	M	SD	M	SD	M	SD	F
Burnout	37.90	4.202	37.38	6.857	37.71	5.925	.052

p>.05

Table 6 displays the difference in burnout based on work model. The test findings revealed that there were no significant differences between the three groups, F = .052, p = .949. Hence, H_{06} was accepted as the p-value was found to be greater than .05 and the differences in burnout based on work model was found to be not significant. These results contradict studies conducted during the COVID 19 pandemic by Arenas et al. (2022) and Fan and Moen (2023) who identified that there is a significant difference due to work model on burnout. According to these studies, employees who were working from home or doing remote work experienced higher burnout compared to employees who used to work from office before the pandemic. However, a study by Gangwar and D'Costa (2021) conducted on millennials identified that after the initial transition of working from home, individuals were quick enough to adapt to the new work model and thus did not experience higher burnout due to the work model.

Since the current study was conducted in 2023, the participants of the study have already experienced work from home for a significant time period and have started to experience hybrid work model as well. Since software developers have been working in such a work model for a significant time period, they are presumed to have adapted to it effectively and no longer experience higher burnout according to the results of this study. Most software developers who participated in the study preferred the hybrid model as they only needed to go to office for 3 or 4 days in a week and could comfortably work from home on the remaining days.

Table 7 Difference in Work-life Balance based on Work Model

		Work From Office (10)		Work From Home (45)		Hybrid (75)		
Variables		**M**	**SD**	**M**	**SD**	**M**	**SD**	**F**
Work Life Balance		43.30	5.376	39.47	8.142	40.56	6.605	1.241

p>.05

Table 7 displays the difference in work-life balance based on work model. The test findings revealed that there were no significant differences between the three groups, F = 1.241, p = .293. Hence, H_{07} was accepted as the p-value was found to be greater than .05 and the differences in work-life balance based on work model was found to be not significant.

Several studies during the Covid 19 pandemic investigated how the transition to work from home affected the work life balance of the employees. Lonska et al. (2021) found that female employees struggled to manage both house work and office work at the same time due to work from home during the pandemic. However, another study conducted by Bellmann and Hübler (2020) stated that although work from home did have a negative impact on work life balance it did not significantly lower the work life balance as employees quickly adapted to the new work model. This was further supported by Ramani (2021) who identified that due to the drastic improvements in technology, employees in India are in favour of working remotely or adopting a hybrid model of work. Such studies are useful in establishing the results of the current study that regardless of the kind of work model, employees are quick to adapt to the new work model and three years from the onset of the pandemic are in favour of adopting the hybrid work model for the future.

Table 8 Difference in Job Satisfaction based on Work Model

	Work From Office (10)		Work From Home (45)		Hybrid (75)		
Variables	**M**	**SD**	**M**	**SD**	**M**	**SD**	**F**
Job Satisfaction	69.90	5.109	72.47	12.245	72.23	12.334	.195

p>.05

Table 8 displays the difference in job satisfaction based on work model. The test findings revealed that there were no significant differences between the three groups, F = .195, p = .823. Hence, H_{08} was accepted as the p-value was found to be greater than .05 and the differences in job satisfaction based on work model was found to be not significant. These findings are supported by the study conducted by Bellmann and Hübler (2020) who identified that job satisfaction is not significantly lower in employees who are working from home or in a hybrid model compared to work from office. A study by Zandi et al. (2022) conducted during the onset of the Covid 19 pandemic also supported the findings of this study as they identified that while it was difficult to adapt in the beginning, employees did adapt to the new work models as time passed on and thus their job satisfaction was not heavily impacted on the long run. The findings of this study indicate that after prolonged exposure to different work models like work from home and hybrid work model most software developers have adapted to it and thus work models are no longer a major determining criteria of job satisfaction among these individuals.

SUMMARY AND CONCLUSION

Summary
The research aims to study burnout, work life balance and job satisfaction among software developers. The study measures burnout, work life balance and job satisfaction among software developers and finds significant differences between the three variables while considering gender and work model. A total of 130 samples were collected, consisting of full-time software developers working in India with at least 1 year of experience. The tools used to collect data were Oldenburg Burnout Inventory to measure burnout, Job Satisfaction Scale by Singh and Sharma to measure job satisfaction and Work-Life Balance Inventory to measure work-life balance. The data was collected through Google Forms. The data was scored based on the manuals of the three tools used and IBM SPSS software was used for data analysis. After performing a normality test, it was identified that the present data was normally distributed leading to the use of parametric tests. The parametric tests that were used are Pearson's correlation, Independent Samples T-test and One Way ANOVA.

Conclusion
The study's primary goal was to investigate the relation between burnout and job satisfaction, and also the relation between work life balance and job satisfaction while also looking for differences in them with gender and work model (work from office, work from home and hybrid). A significant negative relationship was found between burnout and job satisfaction. This would mean that an increase in one variable causes a decrease in the other. A weak positive relationship was also found between work life balance and job satisfaction. This would mean that an increase in one variable causes an increase in the other.

There was no significant difference in burnout, work life balance and job satisfaction due to gender. However, the mean value of burnout among female software developers was slightly higher than that of male software developers. This suggested that men were able to cope with burnout slightly better than women. It was also found that there was no significant

difference in burnout, work life balance and job satisfaction due to work model but it was identified that software developers who were working from office did have higher mean value of work life balance when compared to software developers who were working from home indicating that the work life balance was slightly better in work from office model.

Implications

The research conducted regarding burnout, work life balance and job satisfaction among software developers is a vital study under industrial psychology. There is limited research conducted on software developers as most researches in the past have focused on the broader IT and IT-ES industry or on software developers from other countries. The study firstly assists as an addition to existing literature when studying the variables of burnout, work life balance and job satisfaction especially among software developers. It also adds to the literature that studies how various work models can be a factor for these variables. This is especially important in a post Covid 19 era where software developers have been working from home for a considerable time period and are now adopting a hybrid work model. These additions to literature are indeed vital as it helps in having future studies that are more focused on this specific population in these evolving work models as the world continues to be driven by technology. The results from this study can also be utilised by organisations to improve the job satisfaction of their employees by developing suitable interventions for reducing burnout and improving work life balance.

Limitations of the Study

There were certain limitations which were identified while doing this study. While studying the differences in gender between the three variables the transgender community could not be studied due to lack of data. There is limited research on this population that could be explored in future research. Additionally, the time constraint while conducting this research has resulted in a limited sample size of 130 participants. Future research could be conducted with a larger sample size to achieve more generalisable results. Regression analysis can also be conducted on larger samples to identify the cause and effect of these variables. Extraneous variables like years of experience, age and marital status were not considered for this study and can be explored in the future. A final limitation was with respect to the work model as there was a significantly higher number of software developers who were working from home or in a hybrid work model and there were limited responses from software developers who were working from office and this may have caused disparities while analysing the data.

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