IJNRD.ORG ISSN : 2456-4184
INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD) | IJNRD.ORG
An International Open Access, Peer-reviewed, Refereed Journal

Menstruation-related Symptoms and Work Performance among Female IT Employees

Harini Priyadharshini G M

Researcher, MSW HRDM, Department of Sociology and Social Work, CHRIST(Deemed to be University) Hosur Main Road, Bhavani Nagar, S.G. Palaya, Bengaluru, Karnataka 560029

Dr.Hemalatha K

Assistant Professor, Department of Sociology and Social Work CHRIST(Deemed to be University) Hosur Main Road, Bhavani Nagar, S.G. Palaya, Bengaluru, Karnataka 560029

Abstract:

Women spend a significant part of their lives coping with menstruation, which can cause a wide range of mental and physical difficulties. These symptoms impact their effectiveness and performance at work. This study explores the complex relationship between job performance and menstruation-related symptoms among female IT workers in Bangalore, India. This is a descriptive study, featuring 126 participants, explores the impact of menstrual discomfort on contextual and task performance. Results show a strong inverse relationship between these two aspects of job performance which are contextual performance ($\rho = -0.288$, $p = 0.001$) and task performance ($\rho = -0.176$, $p = 0.048$) and the intensity of menstruation-related symptoms. The concrete implications of menstruation are highlighted by employees' declining ability to perform fundamental job activities and engage in supporting behaviors as symptoms worsen. These findings highlight the necessity of supportive menstruation-specific workplace rules that aim to improve employee productivity and well-being. This study fills a crucial knowledge gap about the complex connection between biology and the workplace.

Keywords: Menstrual-related symptoms, Workplace performance, Female IT employees, Menstrual discomfort, Gender, and work.

Introduction:

The Indian IT sector significantly contributes to the country's economy and employs a substantial number of women, constituting approximately 30% of its workforce. However, this seemingly thriving industry has a concealed facet

characterized by workplace stress and adverse health effects. Reports suggest that IT employees often have diminished productivity, attributed mainly to a range of health issues, including musculoskeletal symptoms, hypertension, diabetes, dyslipidemia, mental health challenges, and obesity (Padma et al., 2015).

Women spend a significant part of their lives coping with menstruation, which can cause a wide range of mental and physical difficulties. These symptoms impact their effectiveness and performance at work. The recent literature says that incongruence between ideal female worker norms, which currently exist, and the nature of menstruation may hinder women's career progression (Grandey et al., 2020).

The workplace environment always expects women to dismiss the physiological effects of menstruation. This is an understudied area, highlighting a notable gap in understanding the implications of menstrual pain and discomfort. (Motro et al., 2019) delved into the impact of menstruation on women's daily well-being and their willingness to engage in supportive behaviors at work. Their research showed that women who were having menstrual discomfort were more exhausted, which made them less likely to work, and they were recorded to have less productivity, among others.

Some progressive private companies in India, such as Zomato and Biju, have initiated policies that allow women to take leave during their menstrual cycles. Certain Indian states, like Arunachal Pradesh, have introduced "The Menstrual Benefits Bill, 2017," proposing that women in both public and private sectors should be granted two days of menstrual leave every month, totaling 24 days annually. These initiatives aim to support women dealing with menstrual-related health conditions and promote open conversations about menstruation, which in turn will increase their productivity in the workplace.

Recent research by Ponzo et al. (2022) conducted a cross-sectional study and found that a significant percentage of women reported moderate to severe impacts of menstrual cycle-related symptoms on their workplace productivity. Alarmingly, 45.2% of the participants reported absenteeism due to these symptoms. Absenteeism disrupts work schedules and creates additional burdens on colleagues who must compensate for the absent employee's workload. This decreases overall team productivity. Collectively, this previous research underscores the adverse impact of menstrual-related symptoms on job performance. This study seeks to delve deeper into the connection between menstrual symptoms and their influence on the workplace performance of female IT professionals.

Review of Literature:

The Menstrual Cycle and Human Biology:

Understanding the complex workings of the human body is crucial in organizations, given its substantial influence on an individual's productivity (Lawrence et al.). Lawrence and colleagues provide a conceptual framework emphasizing materiality—how people view their bodies via relationships—and functionality—how the body may perform. This paradigm helps people understand the role of the body in the workplace. Workers bring their bodies to work with them, along with all the natural processes that go along with them—aging, immunity, sleep, and, for women, the menstrual cycle. Thus, to maintain their long-term health and productivity, employees must be conscious of their bodies and take care of their physical demands (Lawrence et al.,). Menstruation affects about 26% of the world's population, and its absence can be attributed to several conditions, such as menopause, PCOD, and pregnancy. Menstrual symptoms can range from being somewhat uncomfortable to being entirely incapacitating. Notably, 47% of women say they experienced depression throughout their menstruation (Asmaa et al., 2022). While some women

experience severe pain (Dysmenorrhea) during menstruation, others may not have any noticeable symptoms (Riley et al., 1999). According to (Halbreich et al. 2003), women who suffer from severe PMS may have to deal with the symptoms for as long as 2,800 days or more than seven years throughout their reproductive years.

The Menstrual Cycle and Stigmatization at Work:

Pregnancy, menstruation, and menopause are examples of biological phenomena unique to women that are not accepted and stigmatized in the workplace (Chrisler, 2011). Sadly, even in the twenty-first century, menstruation is still frequently viewed negatively by society, with attitudes considering it to be an unpleasant experience (Johnston-Robledo & Chrisler, 2013). In professional contexts, menopause and menstruation are not always viewed favorably because they are sometimes linked to frailty. Because of this stigma, women feel compelled to hide their menstrual-related symptoms for fear that doing so will make it appear as though they are lowering their productivity at work (Grandey et al., 2020).

Productivity and Menstrual Symptoms in the Workplace:

Asmaa et al.'s (2022) study on female employees at a university revealed that 95% of them thought their physical activity decreased during menstruation, which has implications for job performance. In addition, 33% of women reported having stomach discomfort, and 67% reported back pain during their menstrual cycle. It has been demonstrated that PMS's mental and physical symptoms lead to lower productivity and higher absenteeism rates (Hylan et al., 1999). Women with moderate to severe PMS were more likely to report lower production than women without such symptoms, according to studies on the effects of severe PMS on absenteeism and productivity (Heinemann et al., 2010).

Research Gap:

The literature review revealed several research gaps important to understanding the intricate relationship between menstruation-related symptoms and female IT employees' job performance. Interestingly, the majority of study has been done in Western nations, leaving a clear gap in the body of knowledge regarding research done in emerging nations. There hasn't been much discussion of the unique environment in which these countries' IT industries operate. This study aims to investigate the relationship between menstruation-related symptoms and work performance among Indian female IT workers to close this glaring gap. The rapidly expanding IT sector in India has a distinct professional and sociocultural background, making context-specific research necessary. Furthermore, there is an uncharted territory regarding the confluence of multiple elements, such as culture, technology, and the psychological and emotional impact of the menstrual cycle.

Objectives:

1. To identify the most severe menstrual-related symptoms experienced by female IT employees.
2. To assess the level of job performance among female IT employees.
3. To analyze the menstrual cycle details of the participants.
4. To examine the relationship between menstrual-related symptoms and task performance among female IT employees.
5. To examine the relationship between menstrual-related symptoms and contextual performance among female IT employees.

Hypotheses:

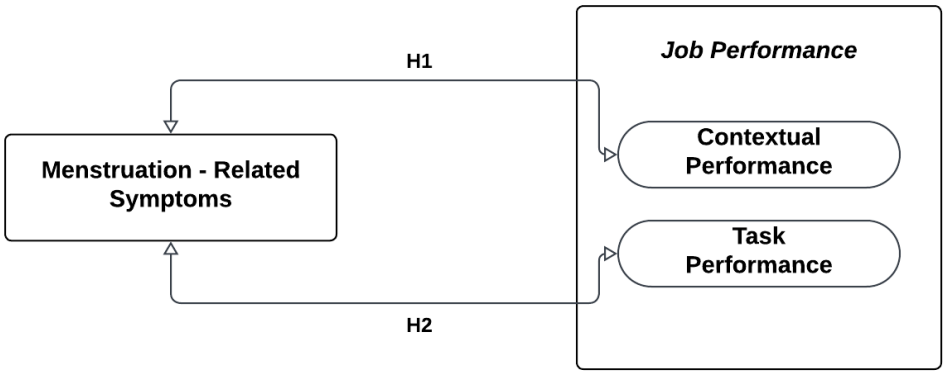

Figure 1: Conceptual framework

H1: There is a significant negative relationship between menstrual-related symptoms and task performance among female IT employees in Bangalore.

H2: There is a significant negative relationship between menstrual-related symptoms and contextual performance among female IT employees in Bangalore.

Research Methodology:

The research employs a descriptive design to investigate the relationship between menstrual-related symptoms and job performance, which has two dimensions, contextual and task performance among female IT employees in Bangalore. This methodology enables a comprehensive understanding of how menstrual symptoms affect these two distinct dimensions of job performance, offering insights to enhance workplace support and influence societal perceptions regarding this issue.

The study collected data from a sample of 126 female IT employees in Bangalore, using a non-probability convenience sampling method due to its accessibility and the availability of participants in the IT sector. Data was gathered through an online survey instrument, comprising two main variables: menstrual-related symptoms and job performance, which includes the sub-dimensions of contextual and task performance. A 4-point Likert scale, ranging from 1 (strongly agree) to 4 (strongly disagree), assessed the severity of menstrual-related symptoms using the Menstrual Symptoms Screening Tool (PSST) developed by Steiner, MacDougall and Brown (2003), comprising 11 items. Job performance was assessed using a 4-point Likert scale ranging from 1 (strongly agree) to 4 (strongly disagree) based on the Job Performance tool by Goodman and Svyantek (1999), which included 16 items. The study's limitations include time constraints that impacted data collection and analysis depth. The exclusive focus on female IT employees in Bangalore may limit the generalizability of findings to other regions and industries, potentially introducing bias.

Analysis:

Demographic Analysis: The study involved 126 participants, representing a diverse demographic range. Educational qualifications spanned from high school diplomas to doctorate degrees, with the highest number (53 participants) holding master's degrees. Age groups included those between 18 and 44, and various workplace roles were examined, with the highest number of participants (53) in executive/managerial positions. This diverse population forms the basis for investigating the impact of menstrual symptoms on job performance in the IT sector.

Table 1: Menstrual cycle infographics

S.no	Particulars	Items	Frequency	Percentage
1	**Average Menstrual Cycle Length**	Less than 21 days	7	5.55
		21-28 days	54	42.84
		29-35 days	34	26.99
		More than 35 days	31	24.6
2	**Average Duration of Menstrual Period**	1-2 days	16	12.69
		3-5 days	81	64.28
		6-8 days	19	15.07
		more than 8 days	10	7.9
3	**Frequency of Menstrual Related Symptoms**	Mild	2	1.58
		Moderate	46	36.5
		Severe	47	37.3
		Very Severe	31	24.6

Menstrual cycle analysis:

The above (Table 1) represents the menstruation cycle infographics of the participants. Participants' menstrual cycle characteristics included a majority (54 participants) with cycles lasting 21-28 days, followed by 34 participants with cycles spanning 29-35 days. Regarding menstrual period duration, most participants (81 participants) experienced periods lasting 3-5 days, with smaller groups having shorter or longer periods. Regarding menstrual symptoms, 46 participants reported moderate symptoms, 47 experienced severe symptoms, and 31 had very severe symptoms.

Table 2: Descriptive Analysis

	Menstruation-Related symptoms	Contextual Performance	Task Performance
N	126	126	126
Missing	0	0	0
Mean	3.29	1.51	1.85
Median	3.27	1.57	2.00
Standard deviation	0.445	0.286	0.255
Minimum	2.18	1.00	1.11
Maximum	4.00	2.00	2.00

Descriptive Analysis:

The descriptive statistics provide insights into the wide range of menstrual-related symptoms experienced by female IT employees and their influence on contextual and task performance. The average severity of these symptoms is 3.29, highlighting the intensity of menstrual-related symptoms that can impact well-being and job performance. Contextual performance, with an average of 1.51, and task performance, with an average of 1.85, indicate varying levels of job performance that persist during menstruation. The range of severity for menstrual-related symptoms extends from 2.18 to 4.00, contextual performance ranges from 1.00 to 2.00, and task performance varies between 1.11 and 2.00. This interpretation explains the levels of menstrual-related symptoms and levels of job performance.

Correlation between Menstrual related symptoms and Job performances

Table 3: Correlation Matrix

		Menstruation-related symptoms	Contextual Performance	Task Performance
Menstrual related symptoms	Spearman's rho	—		
	df	—		
	p-value	—		
	N	—		
Contextual Performance	Spearman's rho	-0.288**	—	
	df	124	—	
	p-value	0.001	—	
	N	126	—	

Task Performance	Spearman's rho	-0.176*	0.118	—
	df	124	124	—
	p-value	0.048	0.186	—
	N	126	126	—

Note. * p < .05, ** p < .01, *** p < .001

Correlation Analysis:

The above (Table 3) explains the correlation between two variable. The Shapiro-Wilk test was conducted to check for the normality of the data. The P value was less than <o.o5, indicating that the data is not normally disturbed. Hence, Nonparametric analysis was used. The Spearman correlation analysis reveals that the variables are inversely correlated, indicating a relationship where one variable increases as the other decreases. This analysis reveals significant relationships between menstrual-related symptoms, contextual performance, and task performance among female IT employees. There is a significant negative correlation between menstrual-related symptoms and contextual performance ($\rho = -0.288$, $p = 0.001$). This implies that as the severity of menstrual-related symptoms increases, the level of contextual performance tends to decrease. There is a significant but weaker negative correlation between menstrual-related symptoms and task performance ($\rho = -0.176$, $p = 0.048$). This suggests that as menstrual symptoms become more severe, there is a tendency for a slight decline in task performance.

Regression:

Table 4: Menstruation and Contextual Performance - Regression analysis

Model Fit Measures - Contextual Performance

				Overall Model Test			
Model	R	R^2	Adjusted R^2	F	df1	df2	p
1	0.291	0.0847	0.0773	11.5	1	124	< .001

Model Coefficients - Contextual Performance

Predictor	Estimate	SE	t	p	Stand. Estimate
Intercept	14.909	1.2828	11.62	< .001	

MS	-0.119	0.0352	-3.39	< .001	-0.291

The analysis of the linear regression (Table 4) output for the relationship between menstrual-related symptoms and contextual performance. The model's adjusted R^2 of 0.0773 indicates that approximately 7.73% of the variance in contextual performance can be explained by variations in menstrual symptoms. The intercept of 14.909 signifies the expected contextual performance when menstrual symptoms are absent, indicating that female IT employees experiencing no menstrual-related symptoms would have this level of performance. The coefficient for menstrual symptoms (MS) at -0.119 highlights that as the severity of menstrual-related symptoms increases, the contextual performance tends to decline.

Menstruation and Task Performance

Table 5: Menstruation and Task Performance - Regression analysis

Model Fit Measures - Task Performance

				Overall Model Test			
Model	**R**	**R^2**	**Adjusted R^2**	**F**	**df1**	**df2**	**p**
1	0.308	0.0946	0.0873	13.0	1	124	< .001

Model Coefficients - Task Performance

Predictor	**Estimate**	**SE**	**t**	**p**	**Stand. Estimate**
Intercept	21.897	1.4592	15.01	< .001	
MS	-0.144	0.0400	-3.60	< .001	-0.308

The analysis of the linear regression (Table 5) output for the relationship between menstrual-related symptoms and task performance. The model's adjusted R^2 of 0.0873 indicates that approximately 8.73% of the variance in task performance can be explained by variations in menstrual symptoms. The intercept, with a value of 21.897, signifies the expected task performance when menstrual symptoms are absent. The coefficient for menstrual symptoms (MS) at -0.144 indicates that as the severity of menstrual-related symptoms increases, task performance tends to decline.

Discussion:

The study's results align with the literature's emphasis on understanding the influence of human biology on workplace dynamics. In the work context, Lawrence and colleagues emphasized the significance of understanding the body's natural functions, such as the menstrual cycle (Lawrence et al.). Menstruation is not a uniform experience; it comprises a broad spectrum of symptoms, from mild discomfort to severe manifestations like depression (Asmaa et al., 2022) and debilitating pain (Riley et al., 1999). This study supports the literature's emphasis on this point. This research underlines how important it is to consider the significance of considering the diverse and dynamic aspects of human biology when assessing their implications for work performance. The study's findings align with remarks in the literature about how female-specific biological processes, including menstruation, pregnancy, and menopause, are stigmatized in the workplace (Chrisler, 2011). The study's focus on the impact of menstrual symptoms on job performance closely aligns with Asmaa et al.'s (2022) research, which found that physical activity tends to decrease during menstruation. It also corresponds with prior studies highlighting the effects of PMS on productivity and absenteeism (Hylan et al., 1999). These consistent findings emphasize the tangible consequences of menstrual symptoms on job performance. The inverse correlation between menstrual-related symptoms and contextual and task performance reaffirms the urgency of implementing workplace policies and practices that consider these needs.

Findings:

These findings not only underscore the importance of understanding this connection but also offer valuable insights for employers, policymakers, and organizations looking to create more supportive and inclusive work environments for women. Female IT employees experience a broad spectrum of menstrual-related symptoms with varying levels of severity. The study found that the average severity rating for these symptoms was 3.29 on a 4-point Likert scale. These symptoms encompassed physical discomfort, emotional fluctuations, and other menstrual-related challenges. The diversity and intensity of these symptoms highlight the complexity of the issue.

The study found a significant negative correlation between the severity of menstrual-related symptoms and both contextual performance (ρ = -0.288, p = 0.001) and task performance (ρ = -0.176, p = 0.048) among female IT employees. Contextual performance involves employees' willingness and ability to engage in supportive behaviors at work, such as helping colleagues and fostering a positive work atmosphere. The R^2 of 0.0773 indicates that approximately 7.73% of the variance in contextual performance can be explained by variations in menstrual symptoms. This finding supports Hypothesis 2, which posited that there is a significant negative relationship between menstrual-related symptoms and contextual performance among female IT employees in Bangalore. As menstrual symptoms became more severe, female IT employees were less inclined or able to participate in these supportive behaviors, potentially impacting team dynamics and workplace culture. The study revealed that increased severity of menstrual symptoms was associated with a slight decline in task performance, affecting the core job responsibilities of female IT employees. The R^2 of 0.0873 indicates that approximately 8.73% of the variance in task performance can be explained by variations in menstrual symptoms. This finding supports Hypothesis 1, which proposed a significant negative relationship between menstrual-related symptoms and task performance in this group. These

findings highlight the real-world consequences of menstrual-related symptoms on job performance, emphasizing the need for more supportive workplace policies and practices.

Future Scope:

This study paves the way for exciting future research opportunities. Researchers can focus on developing tailored workplace policies and support systems that address the impact of menstrual-related symptoms on female employees' performance. Exploring this topic across different industries and regions could provide a more comprehensive understanding of the contextual factors involved. Longitudinal studies might show how these symptoms change over time and their long-term effects on women's careers. Qualitative research can help capture personal experiences and perspectives, deepening our understanding of the intersection of biology and work.

Limitation:

Additionally, reliance on self-reported data and a cross-sectional design constrain the study's ability to establish causal relationships. The scope of variables examined is another limitation, as it does not encompass factors like work-life balance and workplace support, which could provide a more comprehensive understanding of the link between menstrual symptoms and job performance.

Conclusion:

The study's result emphasizes the critical link between menstruation-related symptoms and female IT workers' performance. The research reveals a significant negative connection, highlighting the tendency for contextual and task performance to deteriorate with increasing illness intensity. It is critical to acknowledge these findings to foster work environments that are tailored to the unique requirements of women. Organizations can improve overall well-being and productivity by customizing assistance and flexibility to address menstrual concerns.

Reference:

1. Chrisler, J. C. (2011). Leaks, lumps, and lines: Stigma and women's bodies. Psychology of Women Quarterly, 35(2), 202-214. doi: 10.1177/0361684310397698

2. Fitzgerald, K. (2013). Menstrual Cycle and Workplace Issues: Review of the Literature. https://repositorio.ual.pt/bitstream/11144/2698/1/Menstrual%20Cycle%20and%20Workplace%20Issues.pdf

3. Goke, A. & Awoniyi, O. (2015). Menstrual-related symptoms and quality of life among Nigerian university students. Global Journal of Health Science, 7(5), 27-33.

4. Grandey, A. A., Gabriel, A. S., & King, E. B. (2020). Tackling taboo topics: a review of the three M s in working women's lives. Journal of Management, 46(1), 7-35. doi:.1177/0149206319857144

5. Heinemann, L. A. J., Minh, T. D., Filonenko, A., & Hochgraber, K. U. (2010). Explorative Evaluation of the impact of severe premenstrual disorders on work absenteeism and productivity. www.whijournal.com. Retrieved 2023, from https://www.whijournal.com/article/S1049-3867(09)00106-6/fulltext

6. Hennegan J, Bukenya JN, Makumbi FE, Nakamya P, Exum NG, Schwab KJ, et al. (2022) Menstrual health challenges in the workplace and consequences for women's work and wellbeing: Cross-sectional survey in Mukono, Uganda. PLOS Glob Public Health 2(7): e0000589. https://doi.org/10.1371/journal.pgph.0000589

7. Johnston-Robledo, I., & Chrisler, J. C. (2013). The menstrual mark: Menstruation as social stigma. Sex Roles, 68(1), 9-18. doi: 10.1007/s11199-011-0052-z

8. Lawrence, T. B., Schlindwein, E., Jalan, R., & Heaphy, E. D. (in press). Organizational Body Work: Efforts to Shape Human Bodies in Organizations. Academy of Management Annals.

9. Mishell, D. R., Jr. (2005). Premenstrual disorders: epidemiology and disease burden. American Journal of Managed Care, 11(16 Suppl), S473–S479.

10. Motro, D., Gabriel, A. S., & Ellis, A. P. (2019). Examining the effects of menstruation on women's helping behaviour in the workplace. Journal of Occupational and Organizational Psychology, 92(3), 695-706. doi: 10.1111/joop.12258

11. Ponzo, S., Wickham, A., Bamford, R., Radovic, T., Zhaunova, L., Peven, K., Klepchukova, A., & Payne, J. L. (2022). Menstrual cycle-associated symptoms and workplace productivity in US employees: A cross-sectional survey of users of the Flo mobile phone app. Digital Health, SAGE, 8, 1-12. 10.1177/20552076221145852 journals.sagepub.com/home/dhj

12. Robbins, S. & Judge, T. (2019). Organizational Behavior (18th Ed.). Pearson.

13. Schoep ME, Adang EMM, Maas JWM, et al. Productivity loss due to menstruation-related symptoms: a nationwide cross-sectional survey among 32748 women. BMJ Open 2019;9:e026186. doi:10.1136/bmjopen-2018-026186

14. Stilwell, C. & Harman, K. (2018). Understanding women's experiences in the technology workplace: A review of the literature. ACM Computing Surveys, 51(1), 1-29.

15. The Impact of Menstrual Periods on Performance of Female Workers. (n.d.). Longdom Publishing SL. Retrieved April 22, 2023, from https://www.longdom.org/open-access/the-impact-of-menstrual-periods-on-performance-of-female-workers-45474.html

16. Fenster, L., Waller, K., Chen, J., Hubbard, A. E., Windham, G. C., Elkin, E., & Swan, S. (1999). Psychological Stress in the Workplace and Menstrual Function. American Journal of Epidemiology, 149(2), 127-34