

# "A Study of Stress and Its Effect on Work Performance of Female Employees in Higher Education Institutions in Rural and Metropolitan Areas"- A Review Article

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## ABSTRACT

This study explores the impact of workplace stress on the performance of female faculty members in higher education institutions, with a comparative focus on rural and metropolitan settings. Drawing from academic, technological, institutional, and socio-cultural dimensions, the research identifies critical stressors and their consequences on teaching quality, research output, leadership involvement, and work-life balance. The findings reveal that rural faculty often face infrastructure deficits, digital inequality, and community-driven gender expectations, while metropolitan faculty struggle with technostress, over-competition, and pressure to meet data-driven performance benchmarks.

The study also evaluates the dual role of digital tools and AI-based systems both as stressors and potential solutions highlighting how their strategic use can aid in workload prediction, mental health support, and remote access to resources. Challenges such as inadequate wellness policies, social stigma, and poor digital infrastructure continue to hinder stress mitigation, especially in rural colleges. The research concludes with policy recommendations and future directions, emphasizing the need for gender-sensitive AI solutions, resilient academic ecosystems, and longitudinal studies across diverse geographies.

**KEYWORDS-** Workplace Stress, Female Faculty, Higher Education, Rural vs Metropolitan, Technostress, AI in Academia

## 1.INTRODUCTION

In recent years, job stress has become a major source of concern in academia, especially for women, who juggle multiple professional and personal roles. The issues women in higher education encounter stretch beyond the usual busy schedule and include sociocultural pressures, institutional deficiencies in practice, and a changing digital requirement. These challenges differ widely between rural and urban areas with differences in infrastructure and resources, expectations, and sources of support.

Rural colleges and universities often face limited access to digital infrastructure, trained administrative support, and mental health resources offering to female faculty, further demanding them to navigate dual duties with few supports. Metropolis: however, being state of the art, these maintain a performance driven culture with continuous evaluation, digital surveillance and over-competition. These difficulties can have a negative impact on work performance as it diminishes the quality of teaching, adversely affects research output, constrains administrative involvement, as well as disturb work-family balance.

This research explores the complex nature of stress and its related effects on the professional experiences of female faculty. It also looks at the growing role of A.I. and digital tools, and whether they relieve or intensify stress. The study intends that such a cumulative picture may draw attention to context-specific challenges and

policy and technology solutions that are inclusive, gender-smart, and locally-relevant. And in so doing it creates new knowledge for our institutions that are trying to grow better, more equitable environments for learning for women around the world.

## 2.OBJECTIVES

1. To identify the major sources of workplace stress experienced by female faculty in rural and urban institutions.
2. To evaluate how stress affects different aspects of work performance, including teaching, research, administration, and job satisfaction.
3. To examine the role of AI and digital tools in either contributing to or mitigating workplace stress.

## 3.RESEARCH METHODOLOGY

In this current study, various articles from journals and Google sites such as Google Scholar and PubMed were used to collect the data. Also, related books, journals, research theses, newspapers, and the Internet were browsed and reviewed through YouTube.

## LITERATURE REVIEW

Sr No.	Study	Key Finding
1	Nawungkrida, M., Wahyudi, D., & Ambianasari, A. (2024). The Effect of Multiple Role Conflict and Work Stress on Female Employee Performance with Work Motivation as a Mediator. <i>Jurnal Syntax Transformation</i> , 5(10), 1144–1151. <a href="https://doi.org/10.46799/jst.v5i10.1012">https://doi.org/10.46799/jst.v5i10.1012</a>	The study underscores the interconnectedness of dual role conflict, work stress, and work motivation in influencing the performance of female employees. Addressing these factors is essential for improving workplace outcomes and supporting female employees effectively.
2	Rajak, B. K., Kunja, S. R., & Singh, P. (2020). Emotional labour, stress and employee performance: a study of higher education system. <i>International Journal of Economic Policy in Emerging Economies</i> , 14(1), 306–318. <a href="https://doi.org/10.1504/IJEPEE.2020.10031255">https://doi.org/10.1504/IJEPEE.2020.10031255</a>	The study underscores the importance of understanding emotional labour and its effects on stress and performance in the teaching profession, particularly in the demanding environment of higher education. Addressing these factors can lead to improved outcomes for both teachers and students.
3	Cotos-Gamarra, A., Ruelas-Salazar, M., Fernández-Hurtado, G., & Cordova-Buiza, F. (2023). The Influence of Job Stress on Employee Performance in Higher Education Institutions: A	The paper concludes that job stress is a critical issue that affects employee performance in higher education institutions. It advocates for further research and organizational strategies to address this challenge, ultimately aiming to

	Review and Research Agenda. <i>IBIMA Business Review</i> . <a href="https://doi.org/10.5171/2023.141493">https://doi.org/10.5171/2023.141493</a>	improve both employee well-being and institutional productivity.
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#### 4. OVERVIEW OF WORKPLACE STRESSORS

Stress in the workplace among female faculty within the higher education institutions is cultivated by a combination of the academic, the technological, the institutional, and the socio-cultural barriers- all of which are each enhanced by or escalated based on the higher rates within the rural vs. metropolitan institutions.

##### Academic Stressors

The increasing academic loads of female educators can be a consideration of scholars, including publishing, providing administrative responsibilities, student mentoring, and accreditation needs. It is so stressing that one loses emotional strength to teach and research, and face burnout and job dissatisfaction at a time when they are already in enough of a twist about teaching and research demands.

##### Technological/AI-Induced Stress (Techno stress)

When placed into institutions who are increasingly incorporating new digital tools (i.e., Learning Management Systems (LMS), ERP-based administrative platforms, and AI-generated performance analytics), among faculty, there are an increasing number of individuals with technostress. This is especially clear when they are not adequately trained or when systems are deemed invasive or they consume time. In colleges in rural areas, adaptation is even such a problem due to lack of appropriate digital infrastructure, since rural colleges are forced to work longer hours and frustrated as a result.

##### Institutional and Environmental Stressors

The incongruity in the infrastructures, staff to student ratio and financial backing create disparities in the level of stress. Resource shortage, commute, or lack of support services may be a challenge at the rural institutions whereas at the urban institutions, a performance higher requirement may be a challenge, causing some level of stress even due to better facilities.

##### Socio-cultural Stresses

Women at teaching positions (at least rural ones) increase their burdens because of conventional gender roles, family and other demands and social unfavorability to working women in the community. Such socio-cultural demands may cause limitations in career and even worsen stress especially when there is no form of flexible work-life integration that is encouraged as an institutional policy.

#### 5. THE EFFECT OF STRESS ON THE PERFORMANCE OF WORK TEAMS

Stress plays a major role in the performance of the female workers in institutions of higher learning, posing certain effects on the quality of teaching they produce, amount of research they conduct, and their involvement in the administration of the institution and the general work-life balance. Such effects can be severe and different in both the rural and city institutions.

Teaching Quality Impact It has been shown that, although a nationwide academic perspective is used, there is the requisite impact on teaching quality. Stress will decrease the ability of the faculty to connect with the students in the classroom.

### **Implication on Research Output**

Reduction in research productivity is one of the most straight forward effects of occupational stress. Ladies academic can experience some difficulties in engaging in academic writing, writing proposals, or working in groups because of mental fatigue. Access to research funds, mentorship, and online libraries is even worse in case of rural institutions, which limits the chances even more. Research continuity could be interfered in urban colleges by administrative overload and performance anxiety.

### **Efficiency in Administration and Leadership**

Constant stress may discourage the female employees to volunteer in boss duties or management activities. It takes a longer and less confident time to make a decision, and the quality of task execution can shrink. Women working in rural schools sometimes have to combine several roles and do not get institutional backing, in urban colleges, the faculty is liable to be given to burnouts since they are being habitually monitored in their efforts.

### **Work-Life Balance and employment contentment**

Stress distorts emotional balance and in most instances, women have to miss out either with themselves or family time. It is the impossibility to strike the balance between professional and personal lives that results in non-satisfaction, high rates of absenteeism, and even turnover. This is even more accentuated in rural areas because of societal demands and the lack of support of mental health by the institution.

## **6. RURAL VS METROPOLITAN AREAS: THE COMPARATIVE ANALYSIS**

A lot of differences exist between rural and urban contexts as far as the experience of stress in workplace of female faculty in a higher education establishment is concerned. These variations are occasioned by variation in infrastructure, institutional expectations, availability of digital tools and the socio-cultural settings. These variations should be understood to develop specific interventions towards dealing with stress and enhancing work performance.

### **The amount of stress in rural institutions.**

The rural teachers are mostly female who may come into contact with some basic lack of institutional resource, including access to academic journals, laboratory/ library resources, and shortage of skilled support services. The problem of digital connectivity prevails; unstable internet service makes access to the online training, webinars, or collaborative studies in Google restricted. Also, other mental health services and formal sources of support tend to be lacking. The resulting need to complete many roles, as a teacher, administrator, mentor, combined with a lack of institutional support leads to burnout, both emotionally and physically. It also brings about stress due to the fact that people feel social isolation and there are traditional norms in the society which add stress especially to the working women and their domestic duties.

### **Levels of Stress in Metropolitan Institutions**

At urban colleges, even when material resources and Internet availability are better, professional pressure levels are quite high among female faculty members. The competitive academic system values Published research, student satisfaction, administration tasks, and

grant funding. Constant pressure in achieving Key Performance Indicators (KPIs) and the existence of AI-driven evaluation tools lead to the development of a culture of performance orientation, which can cause anxiety. Most faculty members cite excessive working hours, shortage of work and life balance, and unrealistic expectations by the institution as leading to their feeling overwhelmed. Performance Indicators across geographies

### **Technological Access and Digital Stress**

Technology, while beneficial, presents a double-edged sword. In urban settings, excessive reliance on AI tools, LMS, and real-time performance tracking can create technostress. In contrast, in rural areas, the lack of access and training results in frustration and anxiety, making it difficult for faculty to meet institutional expectations. Both contexts highlight the need for balanced and inclusive tech integration.

### **7. Role of AI and Digital Tools**

The increasing integration of Artificial Intelligence (AI) and digital tools in higher education has transformed academic and administrative workflows. While these technologies aim to enhance efficiency and academic outcomes, they also contribute to new forms of stress, particularly among female faculty in both rural and metropolitan institutions.

### **Artificial Intelligence Apps**

The use of Learning Management Systems (LMS), AI chat bots, automated grading systems, plagiarism examining tools and many more are the most common interventions in the support of teaching and learning. Although these systems simplify the repetitive academic procedures and enhance accessibility of learning content, a lot of female teachers say that they have difficulties to adapt to their functionality. To the most tech-savvy users such tools allow to improve the quality of teaching and minimize the manual workload. Nevertheless, to some who do not get the necessary training or help in general, particularly in rural organizations, such tools turn into a source of stress. They can provoke a sense of failure and digital exhaustion due to constant changes, the new interface, and the need to understand what they are good at effectively.

### **Faculty Stress and Administrative Automation**

Institutional management is increasingly being conducted with the help of AI-driven administrative systems that include ERP (Enterprise Resource Planning) system, attendance tracking system, and performance monitoring dashboards. In as much as these systems are being promoted to minimize clerical work, they also usher in constant monitoring that leads to stress. Women faculty are likely to end up feeling pressurized over the need to achieve data-based objectives in the workplace, phenomena that becomes even more pronounced when AI-based solutions are being used in associations with appraisals or assignments. At the metropolitan entities, the devices enhance accountability and workload tracking and stress control.

### **Digital Disparity and Techno distress in Rural Locality**

Difficult infrastructures, a dearth of internet connectivity, and digital illiteracy constrain the use of AI and digital technologies in the rural environment. Female faculty in these areas fight against the quality of inconstant connection, the lack of IT assistance, and the scarce introduction to new technologies. Consequently, the anticipations of digital expectations made by schools tend to cause aggravation, late work delivery, and emotional breakdowns, which subsequently impact the performance of work and confidence.

## 8. BENEFITS OF MANAGING STRESS THROUGH TECHNOLOGY

Although technology may be a cause of stress at school, at the same time, it has great possibilities to alleviate stress and increase the general well-being of the female members of higher education faculty. There is an opportunity to implement the strategic use of AI and digital tools in their targeted applications to control workload, enhance mental health, and alleviate the isolation that frequently occurs in rural areas.

### **Workload Prediction AI and Scheduling**

The workload prediction and intelligent scheduling can be effectively performed on the basis of Artificial Intelligence. Predictive analytics software examines the time spent on teaching, deadlines, and administrative duties so as to assist in assigning them more productively. One thing that is contributing to faculty burnout and can be addressed with AI systems is the redistribution of the workload based on the peak work periods. These tools can be utilized in balancing the research, teaching, and administrative activities in the urban institutions and optimizing limited human resources and distribution of tasks more evenly in the rural contexts.

### **Wellness and counseling apps that are based on technology.**

Such applications as Wysa, Happify, and Headspace are digital mental health applications that support people with stress, anxiety, or burnout providing personal and confidential assistance. Such platforms consist of chatbots based on AI and cognitive behavioral therapies (CBT) structures that ensure 24-hour emotional support. These judgment free and easy to use resources are helpful to female teachers in rural or underserved areas who would otherwise be lacking face-to-face counseling.

## 9. CHALLENGES IN ADDRESSING STRESS

Although the increasing popularity of stress awareness in the context of workplace stress in higher education has led to appreciable steps towards stress management, especially among the female faculty workers, certain challenges are still welling against the broad application of stress management. These problems are both pervaded by socio-cultural norms, infrastructural constraints, and institutional failures and are predominant in the rural areas as compared to the metropolitan regions.

### **The Stigmatisation of Mental Health**

The social stigma towards mental health is one of the several obstacles that cannot be overlooked when it comes to coping with stress. Through cultural expectations in rural settings, emotional well-being is not easily discussed. Asking any psychological assistance is often considered as a sign of weakness or incompetence, discouraging the members of the faculty to seek any support service. In metropolitan cities, the level of awareness is relatively high, but fear of being labeled or judged by their fellow country mates in Academic circles denies most women the chance to seek help.

**Ineligible Institutional Support Systems** Institutions of higher learning do not have wellness programs, faculty mentoring systems or even mental health policies in place. At least in the rural colleges, it does not even offer

psychological counselling or peer support groups. These systems, when present even in institutions in the city are mostly underutilized or gender insensitive.

### **Expectations in People Academic Roles on the Basis of Gender**

Single women professors are regularly expected to play several roles, including the roles of a teacher, researcher, administrator, caregiver and to stay at a high level in every of these roles. Such gender expectations also tend to go unrecognized in institutional planning and therefore become a case of being overburdened without support. The stress that comes about is not only related to the productivity, but also to self-worth and career growth.

## **10. FUTURE DIRECTIONS AND RESEARCH OPPORTUNITIES**

To deal with stressful workplace, female faculty in higher learning institutions needs to look beyond the current situation and involve innovative measures, which include integrating technology, inclusive institutional policies, and long-term research. With digitalization, the rising stressors, and academic adjustments after the pandemic, the future should focus on preemptive, technology-driven, and gender-aware solutions.

### **Academic Stress Management and Designing AI Tools to Deal with It**

The invention of personal assistants using AI and stress-monitoring dashboards will provide the faculty with real-time assistance. These technologies might monitor working habits and recognize burnout symptoms and prescribe measures such as changing working loads or taking wellness breaks. Individualized alerts and referrals based on the indicators of stress could give faculty the power to manage well-being themselves.

### **Policies Recommended to be Adopted by Female Faculties Welfare**

Institutions need to focus on gender-sensitive policies that respond to gender-specific stressors, including flexible work arrangements, on campus daycare and equal sharing of workload between teaching and administrative tasks. The digital wellness policies must secure that the use of technology does not augment supervision and workload without assistance.

### **Creating Strong Academic Eco-systems After COVID**

The pandemic outlined the necessity of both tech-savvy and stress-sensitive educational ecosystems. Mental health support, virtual tools to work with, and hybrid work models encouraging balance would be among the future strategies which would be successful especially among women who would need to balance their professional and personal life.

## **CONCLUSION**

This study underscores the nuanced and layered character of workplace stress that female faculty in higher education institutions encounter, with particular challenges for those working in rural and urban settings. In face of infrastructural under-provision and restricted digital access as well as socio-cultural pressures experienced by rural educators, their urban peers contend with over-competition, technostress and performance-based

surveillance. The costs of stressful impairments in teaching, research productivity, and work-life balance are readily apparent. While AI and digital solutions can be part of the answer, they can also be new sources of stress if they are used in ways that are not inclusive. Good stress management is needed taking into account demographic and gender-inclusive institution policies, technology infrastructures, and academic wellbeing ecosystems. Future approaches should view AI not only as a way to automate processes, but to optimize wellness with an emphasis on equitable growth and sustained faculty development.