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Workplace Stress and Hypertension: A Study on The Lived Experiences of Working Women.

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ABSTRACTWorkplace stress is a critical public health concern that significantly contributes to the development and progression of hypertension, particularly among women juggling dual responsibilities at work and home. In Pakistan, the experiences of working women with stress-related hypertension remain underexplored, despite rising prevalence and its connection to social expectations and institutional neglect. **Objectives:** This study aimed to (1) explore how workplace-related stress contributes to hypertension in women; (2) identify organizational and interpersonal factors influencing stress levels; and (3) understand how working women balance professional and personal demands in the context of hypertension. **Methods:** A qualitative exploratory research design was used. The study included 20 working women, aged 20–40, from diverse fields and backgrounds, including both married and unmarried individuals, single mothers, and women with and without children residing in Rawalpindi/Islamabad. Women above 40, those with disabilities, morbid obesity, or secondary hypertension, and individuals under 20 were excluded. Participants were recruited using purposive and snowball sampling. Data were collected via in-depth, semi-structured interviews guided by existing literature and validated by Subject Matter Experts (SMEs). Thematic Analysis was employed to analyze the data, following the six-step process outlined by Braun and Clarke (2018). **Results:** Participants reported experiencing overwhelming work routines, a lack of organizational support, and persistent role conflict between professional and domestic responsibilities. Common stress symptoms included physical exhaustion, poor sleep, and hypertension. Gendered expectations, the dual role of women, and the absence of institutional and spousal support amplified stress levels. Several women admitted to compromising their health due to job demands and family obligations. While coping strategies ranged from religious activities and hired help to medication use such as single, double, and triple drug combinations, and social support, many reported inconsistent treatment adherence due to time constraints or lack of awareness. **Conclusion:** The study highlighted the urgent need for structural changes in both workplace environments and societal expectations regarding gender roles. Promoting work-life balance, improving awareness about stress management and hypertension, and creating support systems for working women are essential for mitigating health risks. Multilevel interventions, personal, institutional, familial, and policy-based, were recommended to address this growing concern.**Keywords:** Workplace Stress, Hypertension, Gender Roles, Spousal support, Work-Life Imbalance, Health Management, Awareness

INTRODUCTION

Workplace stress has emerged as a critical public health issue, particularly affecting women who balance demanding professional roles with responsibilities at home. Women often navigate high expectations in the workplace, including tight deadlines, job insecurity, and limited advancement opportunities, while simultaneously managing domestic duties such as caregiving, raising children, and several household chores (Hochschild, 1989). These compounded demands can lead to persistent psychological strain, which over time manifests in physiological conditions like hypertension (WHO, 2020).

Workplace stress in women is not monolithic, meaning it can be categorized into several types, such as acute stress, episodic acute stress, and chronic stress. Acute stress arises from immediate pressures or unexpected challenges; episodic acute stress stems from frequent and repetitive triggers; and chronic stress develops over time due to prolonged exposure to stressors (Spruill, 2010). For working women, sources of stress may include gender-based discrimination, unequal pay, sexual harassment, lack of flexibility, and insufficient workplace support (Karasek, 1979). Additionally, cultural expectations such as those prevalent in South Asian societies like Pakistan intensify the burden on women, pressuring them to fulfill traditional family roles regardless of their employment status (Shahzadi et al., 2021).

Prolonged stress activates the hypothalamic-pituitary-adrenal (HPA) axis, leading to increased cortisol production and sympathetic nervous system arousal. Mushtaq and Najam (2014) suggested that this physiological state elevates heart rate, constricts blood vessels, and increases blood pressure, thereby contributing to the development of hypertension. Chronic exposure to such stressors not only increases the likelihood of hypertension but also reduces the body's ability to return to a state of homeostasis (Whelton et al., 2018).

The interplay between workplace stress and hypertension in women is thus multifaceted and influenced by biological, psychological, and socio-cultural factors. Although global research has established the link between stress and hypertension, limited attention has been given to the nuanced, lived experiences of working women, especially within the specific context of developing countries like Pakistan.

Conceptualizing Workplace Stress

Workplace stress arises when job demands exceed an individual's ability to cope, resulting in adverse emotional and physical responses. For women, these demands are compounded by

systemic inequalities and cultural expectations. The World Health Organization (WHO, 2020) identifies workplace stress as a global health concern that contributes to both reduced productivity and chronic illnesses, including hypertension.

Karasek's (1979) Demand-Control Model explains that psychological strain emerges from high job demands coupled with low control over work. Johnson and Hall (1988) added the moderating role of social support, suggesting that supportive work environments can buffer stress effects. Siegrist's (1996) Effort-Reward Imbalance Model posits that stress arises when work effort is not reciprocated with appropriate rewards, a condition commonly experienced by women.

Women may face multiple forms of workplace stress, including **Acute stress**: Immediate, short-term challenges like deadlines. **Episodic acute stress**: Repetitive issues, such as frequent conflicts or crises. **Chronic stress**: Persistent exposure to toxic environments or job insecurity. These stressors activate the HPA axis and the sympathetic nervous system, leading to physiological arousal, cortisol release, vasoconstriction, and elevated heart rate and blood pressure. When sustained, this state increases the risk of chronic hypertension, cardiovascular disease, and other health problems (Seigrist, 1966).

Understanding workplace stress through psychological and biomedical frameworks is essential for creating effective, gender-sensitive interventions to reduce stress and improve health outcomes.

Hypertension and Stress: A Biomedical Perspective

Hypertension, commonly known as high blood pressure, is a chronic medical condition and a significant risk factor for cardiovascular, renal, and cerebrovascular diseases. According to Seigrist (1966), it is influenced by genetic predisposition, behavioral patterns, lifestyle factors, and psychological stressors. One of the most frequently implicated psychological contributors is chronic stress, which has been shown to initiate and sustain physiological changes that contribute to the development and persistence of hypertension. From a biomedical standpoint, chronic stress activates the hypothalamic-pituitary-adrenal (HPA) axis and the sympathetic-adrenal-medullary (SAM) system. This activation results in elevated secretion of stress hormones, particularly cortisol and catecholamines such as adrenaline and noradrenaline. These biochemical responses increase cardiac output and systemic vascular resistance by causing vasoconstriction, elevated heart rate, and increased blood volume. When these responses become chronic, they can cause sustained elevation in blood pressure, eventually leading to hypertension (Whelton et al., 2018).

As stated by Kulkarni (1998), stress also impacts the body's endothelial function, the inner lining of blood vessels, contributing to inflammation, arterial stiffness, and impaired vasodilation. These processes can accelerate atherosclerosis and increase the risk of cardiovascular complications. Additionally, stress may indirectly promote hypertension through behavioral pathways: individuals experiencing chronic stress may adopt maladaptive coping strategies such as smoking, alcohol use, physical inactivity, and poor dietary habits, all of which are established risk factors for hypertension. Spruill (2010) conducted a longitudinal study that demonstrated individuals with high levels of perceived stress had a significantly greater incidence of hypertension over ten years. This aligns with findings by Mushtaq and Najam (2014), who reported that psychological distress, particularly stress, anxiety, and depression, significantly predicted hypertension among adults in Pakistan. These psychological variables often co-occur, compounding their impact on cardiovascular health. Importantly, stress-related hypertension does not occur in isolation. It interacts with socio-demographic and cultural factors, especially in women. For working women, the persistent stress of role conflict, lack of control, and insufficient social support can amplify physiological stress responses.

This has specific implications for South Asian contexts like Pakistan, where cultural pressures often prevent women from seeking help or prioritizing their health. As such, it is not only the biological but also the social dimensions of stress that must be considered when exploring its relationship with hypertension in women (Soomro, K., 2024).
Understanding these biomedical mechanisms helps highlight the urgency of managing stress in working women, not only as a mental health concern but as a key factor in physical health outcomes like hypertension.
Hypertension, or high blood pressure, significantly increases the risk of cardiovascular, renal, and cerebrovascular diseases. It is influenced by genetic, behavioral, and psychological factors. Chronic stress activates the sympathetic nervous system, increasing cardiac output and vascular resistance, which contributes to sustained high blood pressure (Whelton et al., 2018). Spruill (2010) found that individuals with high perceived stress had a higher incidence of hypertension over ten years. In Pakistan, Mushtaq and Najam (2014) reported that stress, anxiety, and depression significantly predicted hypertension among adults. These findings emphasize the physiological consequences of unmanaged stress.

Global Evidence on Working Women and Hypertension

International studies consistently demonstrate a strong link between workplace stress and elevated hypertension risks among women. This relationship is often intensified by gender-based discrimination, role overload, and organizational hierarchies that limit advancement opportunities for women.

Faerstein et al. (2009) examined Brazilian women in high-strain jobs and found that those with minimal job control and excessive demands had significantly higher rates of hypertension. This aligns with Karasek's (1979) Demand-Control Model, which proposes that psychological strain and its physiological effects, such as increased blood pressure, result from a combination of high job demands and limited control over decision-making. These results also underline the gendered aspect of job roles, as women are frequently underrepresented in leadership and high-autonomy positions, but are expected to equally manage everything at home. Similarly, Hayashi et al. (2011) investigated the impact of job stress on Japanese women. They discovered that those experiencing high job demands with limited autonomy exhibited increased systolic and diastolic blood pressure. Their findings highlighted that long work hours, lack of flexibility, and limited workplace support create a chronic stress environment conducive to the development of hypertension.

Another important dimension is the psychosocial climate of the workplace. Research cited by Glamour (2015), based on a study conducted by Indiana University, revealed that women working in male-dominated environments had persistently higher cortisol levels, a biomarker for stress. Elevated cortisol over time contributes to metabolic disturbances, insulin resistance, and increased cardiovascular risks. These women also reported feelings of isolation, decreased self-efficacy, and limited access to mentorship, which exacerbated their stress levels.

Moreover, the Effort-Reward Imbalance Model (Siegrist, 1996) helps interpret these outcomes. When women invest significant emotional, cognitive, and physical effort into their work but receive inadequate recognition, compensation, or career growth, they experience psychological strain. This imbalance has been linked to adverse cardiovascular outcomes, including hypertension.

Collectively, global research underscores that workplace stress in women is shaped by both structural and interpersonal factors, ranging from workload and autonomy to gender biases

and social support systems. These factors not only elevate psychological stress but also disrupt physiological processes, thereby increasing the risk of hypertension. The need for gender-responsive occupational health policies becomes clear in light of this evidence, especially policies that support flexible work hours, mentorship, and pathways to leadership roles for women.

Domestic Chores and the Second Shift

Arlie Hochschild's (1989) concept of the "second shift" is crucial in understanding the dual burden faced by working women. Despite participating equally in the workforce, women continue to shoulder the majority of domestic responsibilities, including childcare, cooking, and cleaning. This additional workload exacerbates stress and leaves little room for self-care or rest, thereby increasing the risk of hypertension.

As reported by Mushtaq (2018), in Pakistan, cultural expectations rooted in patriarchy reinforce a heavy double burden on women, where they are expected to fulfill both professional and domestic roles with equal dedication. Even after a long day at work, many women are still responsible for household chores such as cooking, cleaning, caring for children, and attending to the needs of extended family members. Unlike their male counterparts, who may receive rest and support at home, women are often subjected to a continuous cycle of unpaid labor. This relentless routine leaves them with little to no time for personal rest, leisure, or self-care, ultimately leading to chronic fatigue and emotional exhaustion. The psychological stress of being perpetually overworked and underappreciated is profound, and over time, this sustained stress can manifest physically. The persistent activation of stress responses in the body contributes to a heightened risk of developing stress-related illnesses, particularly hypertension. The lack of supportive structures both at home and in the workplace further compounds this issue, making it increasingly difficult for women to manage their health and well-being (Mushtaq, 2018).

Local Studies from Pakistan

The growing body of research from Pakistan has increasingly acknowledged the critical role workplace stress plays in the health of working women, particularly its link to hypertension. These studies reflect the complex socio-cultural and economic realities unique to Pakistan, where traditional gender roles, workplace discrimination, and social vulnerabilities converge to intensify stress and adversely affect women's health.

Khan et al. (2020) conducted a comparative cross-sectional study of women working in public versus private educational institutions in Mianwali, Punjab. The results revealed that women in the private sector exhibited significantly higher levels of psychological stress and elevated blood pressure compared to their counterparts in public institutions. The researchers attributed these differences to job insecurity, excessive workloads, and a lack of job benefits commonly seen in private institutions. This study lends empirical support to Siegrist's Effort-Reward Imbalance Model, where an imbalance between high efforts and low rewards or job security leads to chronic psychological stress. The findings are especially relevant in Pakistan's evolving economic context, where privatization has often resulted in precarious employment conditions for women, increasing their vulnerability to both mental and physical health problems, and excessively burdening them. Moreover, the study emphasizes that workplace stress in Pakistani women is not merely a function of workload but is deeply intertwined with organizational policies and job stability.

Another study by Mughal et al. (2022) examined mental health outcomes among young female doctors, a professional group under intense pressure in Pakistan's male-dominated medical field. The study found a strong association between experiences of sexual harassment at work and increased rates of depression and anxiety. These psychological conditions are well-documented precursors and comorbidities of hypertension, highlighting how hostile work environments may indirectly contribute to cardiovascular risk. This research sheds light on the dual burden faced by professional women in Pakistan, coping with both demanding work responsibilities and an unsafe, unsupportive workplace environment. The study further highlights that such stressors may not only reduce job satisfaction and productivity but also lead to long-term health complications if unaddressed. It underlines the critical need for institutional policies that protect women from harassment and provide mental health support to mitigate these risks.

Shahzadi et al. (2021) focused on workplace bullying, a prevalent yet under-recognized source of stress among Pakistani working women. The study highlighted that bullying is particularly detrimental to widowed and/or divorced women, who often face additional social and economic disadvantages. This subgroup was found to experience heightened psychological distress and a sense of social isolation, which intensified their susceptibility to hypertension and other stress-related illnesses. The study underscores how personal vulnerabilities, such as marital status, interact with occupational stressors to produce compounded health risks. This intersectional perspective is crucial for understanding the

heterogeneity of women's experiences in the workplace and tailoring interventions accordingly. It also focuses on the importance of promoting inclusive and respectful work environments, especially for women in vulnerable social positions.

In their study, Ahmed et al. (2021) provided a meta-analytic synthesis of psychosocial risk factors for hypertension among adults in Pakistan, drawing from diverse epidemiological studies. Their analysis identified chronic stress, social isolation, lack of job control, and inadequate social support systems as major contributors to elevated blood pressure. These psychosocial factors are consistent with global findings but carry particular significance in the Pakistani context, where traditional gender roles and socio-economic disparities often restrict women's autonomy and access to resources. This meta-analysis reinforces the critical need for workplace reforms that address not only physical work conditions but also the psychological and social dimensions of employees' experiences. It highlights that interventions aiming to reduce the risk of hypertension must integrate strategies to enhance social support, empower women's decision-making at work, and create more equitable work environments.

Taken together, these local studies provide an understanding of how workplace stress impacts the health of Pakistani working women, ultimately resulting in physiological problems. They reveal that stress is not solely an individual experience but is embedded within broader organizational, cultural, and socio-economic structures. Women's dual roles as professionals and primary caregivers add to their stress levels, while systemic factors such as job insecurity, harassment, and bullying further exacerbate health risks (Mushtaq, 2018). These findings advocate for culturally sensitive, multi-level interventions that address workplace policies, social support networks, and individual coping mechanisms to improve women's health outcomes, particularly in reducing the burden of hypertension.

Coping Strategies and Support Systems

Globally, working women adopt various coping strategies to manage stress, including time management, physical activity, social support, and spiritual practices. In the Pakistani context, coping often involves seeking emotional support from family, engaging in religious practices, and utilizing healthcare services.

Women in higher socio-economic strata are more likely to access healthcare services and adopt preventive health behaviors, while those in lower socio-economic brackets may lack

awareness and resources, leading to delayed diagnosis and treatment of hypertension (Meena et al., 2024).

As stated by Meena (2024), Pakistani women employ a variety of coping strategies to manage stress and hypertension, shaped by cultural, social, and economic factors. One of the primary methods is reliance on social support networks. Emotional support from family members, especially spouses, and close family members, helps alleviate psychological distress and provides a buffer against workplace pressures (Khan et al., 2020). This reflects the collectivist nature of Pakistani society, where extended family and community ties play a crucial role in emotional resilience.

Religious and spiritual practices are also significant coping mechanisms. Many women engage in prayer, meditation, and other religious rituals that offer comfort, hope, and a sense of control in stressful situations (Riaz and Ejaz, 2019). These practices not only provide psychological relief but also reinforce social connections through participation in community religious activities.

Lifestyle modifications are another key strategy. Women often try to improve their health by adopting healthier diets, increasing physical activity, and ensuring adequate rest to manage hypertension and reduce stress (Ahmed et al., 2021). However, these behaviors can be difficult to maintain due to the competing demands of household responsibilities and limited access to health education or facilities. Some women also rely on the help of a servant or maid for their household chores, and also to look after the children. However, house help is not accessible to every woman due to the class difference and economic conditions (Riaz and Ejaz, 2019). In workplace settings, Pakistani women may utilize peer support and informal mentoring to manage job-related stress (Shahzadi et al., 2021). Time management and prioritizing tasks are common pragmatic approaches women adopt to balance the dual demands of professional and domestic life.

Despite these coping efforts, many women face barriers such as mental health stigma, lack of formal counseling services, and restricted autonomy within both family and workplace contexts (Mughal et al., 2022). These structural and socio-cultural challenges often limit the effectiveness of coping strategies, highlighting the need for culturally sensitive interventions that address systemic issues.

In summary, coping strategies among Pakistani working women represent a blend of traditional social support, house help, religious coping, lifestyle changes, and workplace

problem-solving. Recognizing and integrating these culturally embedded approaches is essential for developing effective programs to reduce stress and manage hypertension in this population.

Despite the growing interest in women's health, there remains a significant gap in qualitative research exploring the lived experiences of working women concerning stress and hypertension in Pakistan. Most studies are quantitative, focusing on prevalence rates and correlational analyses without delving into personal narratives. There is also a lack of research that considers the intersectionality of various factors such as marital status, motherhood, socio-economic status, and type of occupation. This study aims to fill these gaps by capturing the voices of a diverse group of working women in Rawalpindi and Islamabad.

METHODOLOGY

Research Design

This study was conducted to explore the lived experiences of working women regarding workplace stress and hypertension. It consisted of married and unmarried working women from every class and field of work. The study primarily followed a qualitative exploratory approach as the research design.

Instrument

A comprehensive interview guide was developed in both Urdu and English, incorporating feedback and recommendations from subject matter experts to ensure its relevance and effectiveness. A panel of qualified professionals reviewed a draft version of the guide, providing input to enhance its clarity and alignment with the study's objectives. Expert validation confirmed the significance and appropriateness of each question, and necessary improvements were made accordingly. To facilitate ease of communication, semi-structured interviews were conducted in Urdu, allowing participants to express themselves comfortably. With informed consent, interviews were audio recorded and later transcribed in detail. Using the finalized interview guide, in-depth interviews were conducted to explore participants' perspectives. Participants were selected using purposive and snowball sampling to ensure they had direct experience with workplace stress and hypertension. Participants were assured of their right to withdraw from the study at any stage if they felt discomfort or were unwilling to continue. Thematic Analysis, as outlined by Braun and Clarke (2018), was employed to analyze the data, leading to the identification and development of key themes. Furthermore, to enhance credibility, member checking was conducted. Participants were invited to review and provide feedback on the summarized themes to ensure accurate representation of their views. In addition to this, methodological triangulation was used by comparing findings across participants and reviewing literature to validate emerging themes. Additionally, researcher triangulation was employed through collaborative coding by the researchers.

Sample

The participants were selected through purposive and snowball sampling techniques, as these methods allow for a focus on particular characteristics and/or attributes of a population that are most relevant to the objectives and research questions. Data collection continued until

data saturation was reached, after the 20th interview, no new themes emerged, indicating that sufficient depth and breadth of data had been achieved. The final sample consisted of (N=20) female participants. To maintain participant confidentiality, pseudonyms have been assigned. For the present study, the sample size of 20 individuals conforms to the recommended sample size by Braun and Clarke, 2018 version.

Inclusion Criteria

For this study, a total of 20 working women aged between 20 and 40 years were selected. The sample included both married and unmarried women, single mothers, and women with and without children, all with a documented history of hypertension. Participants were drawn from diverse socio-economic backgrounds and represented a range of occupational sectors. Data collection was conducted within the twin cities of Rawalpindi and Islamabad.

Exclusion Criteria

Women above the age of 40, those with any mental or physical disabilities, individuals who were differently abled, those with morbid obesity or diagnosed with secondary hypertension, and women below the age of 20 were excluded from the study. Given the broad scope of the research, the sample was intentionally not restricted to married participants alone.

Table 1

Demographics of the participants (N=20)

Pseudonyms	Age (years)	Gender	Education	Marital Status	Job
MA	32	F	Masters	Unmarried	Banker
SI	36	F	MBBS	Married	Doctor
MW	25	F	None	Unmarried	Janitor
AS	25	F	FSc.	Unmarried	Cashier
LW	28	F	Matriculation	Married	Receptionist
SM	38	F	MBBS	Married	Doctor
KJ	27	F	FSc.	Unmarried	Salesgirl
IY	40	F	MBBS	Married	Doctor

WB	29	F	Masters	Divorced	Teacher
AR	35	F	Masters	Married	Teacher
SG	32	F	Middle school	Single mother	Waitress
WK	22	F	Middle school	Unmarried	Cashier
MM	24	F	FA	Unmarried	Waitress
LO	26	F	Matriculation	Married	Cashier
YJ	39	F	Bachelors	Married	Banker
HW	37	F	Bachelors	Married	Banker
MI	37	F	Bachelors	Married	Doctor
AS	31	F	Bachelors	Divorced	Teacher
MH	32	F	None	Unmarried	Janitor
SK	40	F	Masters	Married	Teacher

RESULTS

Based on the interview transcripts, a total of 8 themes emerged, which provide a detailed understanding of the various perspectives and personal experiences shared by the participants.

Figure 1

This figure shows all the main themes that emerged from the data. These themes are categorized and detailed as follows, highlighting the important points that were recurrently mentioned throughout the discussions:

1. Draining Nature of Work-Life Routine, 2. Gendered Burdens and Dual Responsibilities, 3. Organizational Stressors and Systemic Neglect, 4. Physical Health Impact, 5. Struggles with Medication and Health Management, 6. Coping Mechanisms and Strategies, 7. Support Systems and Social Resources, 8. Awareness, Prevention, and Advocacy Needs

Main Category	Themes
Workplace Stress and Hypertension	1. Draining Nature of Work-Life Routine
	2. Gendered Burdens and Dual Responsibilities
	3. Organizational Stressors and Systemic Neglect
	4. Physical Health Impact
	5. Struggles with Medication and Health Management
	6. Coping Mechanisms and Strategies
	7. Support Systems and Social Resources
	8. Awareness, Prevention, and Advocacy Needs

Furthermore, each emerging theme had sub-themes that further contributed to the explanation of the occurrence of the phenomenon.

Table 2

The description and explanation of emergent themes with their subthemes

Themes	Subthemes	Codes (Merged/Representative)	Description
Draining Nature of Work-Life Routine	- Lack of personal time- Burnout- Constant fatigue	Hectic, no me-time, robotic, mentally draining, sleep disturbances, emotionally exhausting	Participants described their daily lives as repetitive, exhausting, and lacking relaxation or joy, contributing to chronic stress.
Gendered Burdens and Dual Responsibilities	- Role conflict- Unequal labor at home- Cultural expectations	Expected to do both jobs, managing somehow, stress from home duties, lack of appreciation, traditional expectations	The dual pressure of professional and domestic roles, especially due to societal expectations from women, significantly elevated stress levels.
Organizational Stressors and Systemic Neglect	- Workplace injustice- Toxic culture- Lack of institutional support	Discrimination, favoritism, no HR system, no promotions, overwork, toxic environment	Many women faced unequal treatment, poor management practices, and unacknowledged efforts, which intensified stress and impacted their mental health.
Physical Health Impact	- Somatic symptoms- Sleep issues- Chronic fatigue	Headaches, increased BP, palpitations, can’t sleep, tired all day	Work and domestic stress were strongly associated with physical symptoms like hypertension, sleep disruption, and fatigue.
Struggles with Medication and Health Management	- Non-compliance- Medication fatigue- Self-adjustment of treatment	Missed doses, stopped meds when feeling fine, no guidance, afraid of side effects	Participants reported challenges adhering to hypertension treatment due to time constraints, lack of

Themes	Subthemes	Codes (Merged/Representative)	Description
			medical information, and workload.
Coping Mechanisms and Strategies	- Emotional/spiritual coping- Problem-focused coping	Religious practices, sleep, hired help, talking to someone, watching TV, home remedies	Women employed varied coping mechanisms, ranging from hiring help and praying to passive disengagement and social interaction to manage their stress.
Support Systems and Social Resources	- Family support- Peer relief- Lack of spousal help	Some family support, no support at work, helpful colleagues, unsupportive spouse	The level of emotional and physical support varied across participants, with most citing insufficient help from employers and mixed support from family.
Awareness, Prevention, and Advocacy Needs	- Demand for education- Policy recommendations- Need for cultural change	Seminars, work-life imbalance, lack of awareness, healthcare provider issues, compared with global models	Participants highlighted the need for awareness campaigns, policy-level interventions, and better education from healthcare providers to manage hypertension and stress effectively.

Draining Nature of Work-Life Routine

Many participants described their daily routines as monotonous, devoid of leisure, and mentally exhausting. They highlighted how workdays felt “robotic,” with no space for personal time or enjoyment.

“It’s like I wake up, rush to work, come back, and start house chores. There’s no me-time, no fun. I feel like a robot.”

“Every day is hectic and stressful. I don’t even have time to sit down and breathe.”

Lack of Personal Time

Participants shared how their demanding schedules left little room for themselves.

“I come home, cook, clean, and then fall asleep like a machine… there’s no time for me.”

Burnout

The cumulative effect of persistent workload led to burnout in many cases.

“There are days I just sit in the car and deep breathe before entering the office. It’s like my mind refuses to function anymore.”

Constant Fatigue

The never-ending cycle of responsibilities contributed to chronic tiredness.

“Even after 8 hours of sleep, I wake up feeling like I haven’t slept at all.”

Gendered Burdens and Dual Responsibilities

Participants frequently emphasized the toll of managing dual roles, as employees at work and wives or mothers at home. They expressed that while work was demanding, household responsibilities often intensified the pressure.

“Even after office, I have to cook, help my kids with homework, and clean up. There’s no rest. It just adds to the burden.”

“My stress doesn't end at the office door. It continues at home. Sometimes, that’s even more stressful, even more so because my husband doesn’t help me.”

Role Conflict

Women felt they had to constantly juggle professional and personal roles.

“At work I’m expected to lead, and at home I’m expected to serve. It’s exhausting.”

Unequal Labor at Home

Inequitable household dynamics placed additional pressure on women.

“My husband says he’s tired too and that domestic chores aren’t his duty, so in the end, I am the one doing everything.”

Cultural Expectations

Traditional norms intensified these pressures.

"It's shameful for a woman to neglect home, people think something is wrong with her upbringing and character."

Organizational Stressors and Systemic Neglect

A recurring pattern was the expectation placed on women to efficiently handle both professional duties and domestic responsibilities without complaint. Several participants shared how these gender norms contributed to emotional strain.

"Men are usually expected to just earn. But women have to do both jobs, i.e., office and home, and still be calm."

"Even if I am tired, I have to cook or clean. No one else will do it because I'm the woman."

Workplace Injustice

Participants highlighted how biased treatment at work exacerbated stress.

"Male colleagues get promoted with ease while we are told to be 'patient' and 'keep working hard."

Toxic Culture

A lack of emotional safety was frequently mentioned.

"Even if you are sick, they will guilt-trip you into showing up."

Lack of Institutional Support

Most women found their HR systems ineffective.

"There's no support, just policies written on paper but never practiced."

Physical Health Impact

Support systems play a vital role in stress management, yet many participants reported insufficient support, particularly in the workplace.

"There's no support at work. At home, my husband helps a bit, but it's not enough because at the end of the day, I am supposed to wind up everything and keep stuff in check."

"*My blood pressure is always high when I am stressed, and in worse cases, I also feel dizzy and cannot sleep because of it."*

"Friends at work listen, but that's all they can do. There's no real relief from the workload."

Somatic Symptoms

Stress manifested physically in several forms.

"I started getting chest pains and headaches that never go away."

Sleep Issues

Disrupted sleep patterns were common.

"I lie in bed at night thinking about unfinished work or tomorrow's tasks."

Chronic Fatigue

The body's inability to recover reflected the psychological toll.

"Even weekends don't help. It's like my body has forgotten how to rest."

Struggles with Medication and Health Management

Participants strongly linked workplace and household stress with the onset and progression of hypertension. Many reported experiencing symptoms like headaches, fatigue, and sleep disturbances.

"My blood pressure shoots up when there's too much stress, deadlines at work, and fights at home and I forget to take medicines because I already have too much on my mind."

"When things get overwhelming, I get palpitations and headaches. It's all connected. But I still don't get any support from home because that's just a 'part of life.'"

"I am from a very low class and getting my hands on medication is hard, especially if it's from a private institution which is why I often ignore my BP or any other symptoms."

Non-Compliance

Participants admitted to skipping medications.

"Sometimes I just stop taking my pills because I get tired of the routine."

Medication Fatigue

A sense of burden was associated with long-term medical care.

"I hate being dependent on tablets, it makes me feel old and sick."

Self-Adjustment of Treatment

Many resorted to self-regulation of dosage.

"I reduce the dose when I feel fine, even if the doctor says not to."

Coping Mechanisms and Strategies

Although most participants acknowledged the importance of medication, some admitted to missing doses due to workload, forgetfulness, or feeling "fine."

"Sometimes I forget to take medicine because I'm too busy at work."

"I stop taking it if I feel okay, but then my BP spikes again."

"*My doctor told me to never skip the medication for hypertension but sometimes things get too overwhelming for me to even remember that I have hypertension."*

Emotional/Spiritual Coping

Religion and inner reflection helped some maintain stability.

"I pray a lot and ask Allah to ease my pain, and that gives me peace, at least for a while."

Problem-Focused Coping

Others preferred actionable steps.

"I make lists, plan meals, and avoid toxic people. That's how I usually cope."

Support Systems and Social Resources

Women adopted various coping strategies to manage stress and hypertension. These ranged from spiritual practices and social support to practical solutions like hiring help or resting when possible and taking medications.

"I read the Quran and try to calm myself down."

"I hired a maid recently. That has taken some load off."

"I am taking medicines for my BP, such as Capoten and Norvasc, which help me focus because my BP remains in check."

Family Support

Supportive family members were seen as buffers against stress.

"Sometimes, my mother-in-law helps which is a lot and I feel relieved because my burden reduces."

Peer Relief

Coworkers provided emotional validation.

"Talking to my female colleagues is like therapy, we all understand each other."

Lack of Spousal Help

However, many also reported inadequate support from spouses.

"My husband thinks earning is enough. He doesn't see what else I carry."

Awareness, Prevention, and Advocacy Needs

Many participants suggested practical strategies to reduce stress, including improved workplace policies, more awareness campaigns, and societal changes in gender expectations.

"There should be free medical seminars or awareness sessions, especially for working women, to educate them about work stress and the physical consequences it causes. Free medical campaigns would help women from every class in managing their health and tracking their symptoms."

"If workplaces allowed some physical activity or stress-relief breaks like other countries like Japan, Korea, and China, it would help a lot."

"We need more support at home and understanding spouses who don't just expect women to do everything but provide help when needed, whether regarding children or household chores."

"*I think women should not start OR stop taking medications as per their convenience and complete the course that the doctor has prescribed them. And only after consulting the doctor, should they stop their medication."*

Demand for Education

Participants stressed the need for better public awareness.

"People think hypertension is just about salt. They don't realize it is stress too. So, people should be more aware of the common and existing problems so that they don't suffer later"

Policy Recommendations

There was a strong call for health-supportive workplace policies.

"If only there were flexible hours or real mental health checkups at work, things would be different"

Need for Cultural Change

Shifting social perceptions was considered crucial.

"Until society sees women as humans and not just caretakers, this stress won't go away."

DISCUSSION

The current study aimed to explore the lived experiences of working women dealing with workplace stress and hypertension in Pakistan. Through thematic analysis of semi-structured interviews, eight significant themes were identified, each highlighting the multifaceted nature of stress, its contributing factors, and its impact on the physical and psychological health of women.
Participants described their routines as repetitive, emotionally exhausting, and void of personal time. This aligns with prior studies that have emphasized how constant occupational pressure leads to burnout and chronic stress among working women (Bhui et al., 2016). The absence of leisure or personal time impairs emotional regulation and increases vulnerability to hypertension (Spruill, 2010). Moreover, when work routines become robotic and mundane, it not only reduces life satisfaction but also contributes to psychosomatic issues such as fatigue, headaches, and blood pressure fluctuations.

Women in this study highlighted the dual burden of professional and domestic responsibilities. This mirrors findings from studies by Malik and Courtney (2011) and Ahmad and Anwar (2018), which emphasize the deeply entrenched gender roles in South Asian societies. Participants revealed that they are culturally expected to handle domestic chores even after exhausting workdays, which creates a significant source of psychological strain. This dual workload contributes to chronic fatigue and the development of lifestyle-related diseases such as hypertension (Waqas et al., 2019). The stress generated from trying to maintain balance without sufficient support exacerbates the emotional toll on women.
Many participants reported discriminatory practices, toxic workplace environments, favoritism, and a lack of institutional support. These experiences echo global findings that

link poor organizational culture with employee burnout and mental health challenges (WHO, 2022). Locally, studies by Fatima and Zaman (2020) report similar organizational injustices as key contributors to occupational stress in Pakistani workplaces. The absence of structured HR systems and a lack of mental health policies make coping even more difficult for female employees.

Many of the women reported somatic symptoms such as persistent fatigue, headaches, and sleep disturbances directly linked to their stress. These findings are consistent with biomedical studies showing that chronic stress is a major risk factor for hypertension and cardiovascular disease (Chrousos, 2009; Steptoe & Kivimäki, 2012). For Pakistani women, societal stressors coupled with physiological strain manifest more intensely due to limited access to healthcare and time for self-care. This stress–illness link is particularly critical in South Asia, where lifestyle diseases are rapidly increasing among the female population (Nishtar et al., 2013).

Participants discussed challenges with medication adherence due to workload, forgetfulness, insufficient resources, or side effects. This reflects broader issues of non-compliance in hypertension treatment seen across developing nations (Abegaz et al., 2017). Healthcare providers were often found lacking in providing proper education about medication, which complicates the problem. The narratives here indicate that the women's stress isn't just physiological but also administrative and systemic, stemming from lack of guidance, time constraints, and financial limitations. Studies like Bano & Khuwaja (2016) have also identified these as prevalent barriers in urban Pakistani populations.

A diverse range of coping mechanisms was reported, from spiritual practices to hiring help and seeking emotional support. This mirrors the findings of research by Zahir (2019), who noted that Pakistani women rely heavily on religion and informal support networks to cope with stress. Some participants turned to problem-focused strategies like sleep and medication, which have been linked to better outcomes when consistently applied (Lazarus & Folkman, 1984). However, the lack of consistent, structured support from healthcare systems and employers limits the effectiveness of these coping strategies.

Many participants highlighted the role of family, peers, and employers in buffering stress. Participants who had supportive family members or understanding colleagues reported comparatively better stress management. This is consistent with the findings of Khan et al. (2017), who emphasized the protective nature of social support against psychological distress. Conversely, a lack of spousal support and workplace understanding further intensified stress and health complications. These findings support the stress-buffering

hypothesis, which posits that social support mitigates the negative effects of stress on health (Cohen & Wills, 1985).

Moreover, the participant voiced the urgent need for health education, awareness campaigns, and structural changes in workplace policies. Their call for public seminars, government initiatives, and healthcare reform resonates with recommendations from global health authorities (WHO, 2021). Comparative suggestions to emulate workplace support systems from countries like Japan and South Korea indicate a growing awareness of systemic inadequacies in Pakistan. A study by Shahnaz & Malik (2020) similarly emphasized the need for national health policies to prioritize women's occupational health.

CONCLUSION

This study illuminated the relationship of gender roles, occupational demands, physical health, and cultural expectations in shaping the lived experiences of working women in Pakistan, particularly those managing hypertension. The narratives revealed not only the individual psychological toll of balancing dual responsibilities but also the systemic inadequacies in organizational support, gender equity, and healthcare access. Many participants reported chronic fatigue, poor sleep, dietary irregularities, and limited physical activity, all of which are known medical risk factors for hypertension. The cumulative stress, compounded by a lack of preventive healthcare practices and inadequate workplace wellness policies, contributes to the early onset and poor management of hypertension among this demographic. Moreover, the psychosocial strain, including emotional labor, societal pressure to conform to traditional gender roles, and the stigma surrounding women's health, further aggravates both mental well-being and physiological outcomes such as elevated blood pressure, disrupted hormonal cycles, and cardiovascular strain. These findings emphasize the need for a biopsychosocial approach in addressing hypertension among working women. The implications extend beyond individual health, calling for integrated policy efforts. Workplace reforms must include stress-reduction strategies, flexible work hours, on-site health screenings, and mental health support. Additionally, public health initiatives should aim to raise awareness about the gendered impact of stress and the importance of regular medical monitoring for hypertension. Future research should explore these dynamics across a broader range of socio-economic and geographical settings in Pakistan, while clinical studies may further investigate the physiological impact of chronic occupational stress in women. A multidisciplinary response, involving healthcare providers, employers, policymakers, and

community stakeholders, is essential to reduce the burden of hypertension and promote long-term health equity for working women.

LIMITATIONS

Despite its valuable insights, this study has certain limitations that must be acknowledged:

1. The study was limited to 20 participants from the twin cities of Rawalpindi and Islamabad, which may not fully capture the diversity of experiences among working women across Pakistan. Variations in regional, cultural, and institutional settings could lead to different stressors and coping mechanisms.
2. As with all qualitative studies relying on self-reports, the findings are shaped by participants' personal perceptions, memory recall, and comfort in sharing sensitive information, especially regarding health and workplace environments. This can lead to response bias.
3. Women above 40, those with morbid obesity, secondary hypertension, or physical/mental disabilities were excluded from the study. Their lived experiences might offer important insight into the complex relationship between chronic stress and hypertension, but remain unexplored in this study.

RECOMMENDATIONS FOR FUTURE RESEARCH

1. Future studies should include participants from rural regions, different provinces, and various economic backgrounds to explore how cultural and institutional factors vary across Pakistan.
2. Combining qualitative data with clinical metrics, such as regular blood pressure monitoring, stress hormone levels, or medical history, would add empirical weight and medical depth to the findings.
3. Tracking participants over time could reveal patterns in stress exposure, coping changes, and the progression or management of hypertension, which would be valuable for clinical and policy-level intervention.
4. Research assessing the impact of specific workplace policies (e.g., flexible hours, mental health programs, maternity support) on stress reduction and blood pressure control would be crucial in developing evidence-based interventions.

FUTURE IMPLICATIONS

The findings of this study have meaningful implications for the medical field, particularly in the areas of public health, preventive medicine, and women's healthcare. By highlighting the lived experiences of hypertensive working women, the study underscores the need for early screening protocols that go beyond physical symptoms to include assessments of occupational and psychosocial stressors. Gender-sensitive medical interventions should be developed to address the dual burden of work and home responsibilities, which are significant contributors to chronic stress and elevated blood pressure in women. The insights also call for workplace-integrated healthcare programs that offer stress management resources, lifestyle modification support, and continuous patient education to improve treatment adherence and outcomes. Furthermore, the research supports the need for policy-level changes that promote gender-inclusive occupational health standards and accessible healthcare services. Medical training programs should incorporate psychosocial dimensions of chronic illnesses like hypertension to ensure holistic and empathetic patient care. Lastly, this study provides a foundation for future research into the relationship between workplace stress and comorbidities such as cardiovascular disease, depression, and anxiety in working women, especially within the cultural and healthcare context of Pakistan.

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