STM JOURNALS

International Journal of
Behavioral Sciences

ISSN: 3049-1045
Volume 3, Issue 1, 2026
January–April
DOI (Journal): 10.37591/IJBSC

https://journals.stmjournals.com/ijbsc

Research IJBSC

# The Importance of Self-Care for Healthcare Professionals in North India: A Regional Analysis of Burnout, Resilience and Institutional Support

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***Abstract***

***Background:*** *Burnout in healthcare professionals is described using the framework of Occupational Health and Resilience Theory, where self-care is an individual-level coping mechanism and institutional support is an organizational-level moderator. However, there is a lack of regional data from North India on the structural and contextual factors influencing burnout. Healthcare workers (HCWs) in North India face mounting pressures due to high patient loads, limited mental health resources, and overlapping professional and personal responsibilities. Understanding disparities in self-care, burnout, and institutional support is critical for informing policy and interventions.* ***Objective:*** *To examine self-care practices, burnout levels, and access to institutional support among HCWs across urban and rural settings in North India, with attention to gender and professional differences.* ***Methods:*** *This cross-sectional study was conducted from January to December 2023 among 600 healthcare professionals in five states of North India using stratified random sampling. Burnout was measured using the Maslach Burnout Inventory, and self-care was measured using the WHO Self-Care Index. The institutional support variables included access to counseling services, mental health leave, and wellness activities. Institutional Review Board approval was taken (IEC/2022/45). The statistical analysis included effect size (Cohen's d), odds ratio (OR), 95% confidence interval (CI), and multivariate regression coefficients (β). Data were analyzed using SPSS v28 with ANOVA and regression methods.* ***Results:*** *Urban healthcare professionals scored significantly higher on self-care (14.2 ± 3.1) than rural healthcare professionals (9.8 ± 2.7; $p < 0.001$; Emotional exhaustion was more prevalent in rural areas (74% vs. 52%; $p = 0.002$). Cohen's $d = 1.53$). Rural healthcare professionals showed higher odds of emotional exhaustion (OR = 2.61; 95% CI: 1.78–3.84). Urban HCWs also had greater access to counseling (65% vs. 28%; $p < 0.001$). Self-care was an independent predictor of lower emotional exhaustion ($\beta = -0.42$; 95% CI: −0.51 to −0.33; $p < 0.001$). A significant gender by region interaction ($\beta = 0.18$; $p = 0.02$) revealed cumulative risk for rural female healthcare professionals. Female HCWs reported more work-family conflict (68% vs. 44%; $p < 0.001$) and higher depersonalization (22.5 ± 6.3 vs. 18.2 ± 5.1; $p = 0.003$) than males. Doctors reported the highest access to mental health leave (55%), while allied staff reported the least (18%; $p < 0.001$).* ***Conclusion:*** *Burnout inequities in North India are a reflection of structural issues in gender and geographic disparities. Enhancing institutional support and incorporating resilience-focused occupational health policies in the national framework is essential for long-term workforce well-being.*

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Received Date: May 04, 2025
Accepted Date: May 12, 2025
Published Date: February 23, 2026

**Citation:** Atul Khajuria, J. Samuel Kamanda, Eric Kwasi Elliason, Christian Gendemeh, Stephen Monday. The Importance of Self-Care for Healthcare Professionals in North

**Keywords:** Healthcare workers, burnout, self-care, institutional support, gender disparities, rural-urban differences, India

 

## INTRODUCTION

Healthcare providers in Northern India are particularly challenged with an inordinate number of patients, limited resources, and socio-cultural expectations. The COVID-19 pandemic heightened existing burdens, with a study reporting 68% burnout among Indian healthcare workers (HCWs) during peak waves [1]. In North India, mental health care is scarce, coupled with inadequate staffing across healthcare systems, believed to exacerbate self-care neglect due to multiple role conflicts [2]. For example, the working schedules of many female HCWs are complicated by large family responsibilities, which increases stress [3]. Although there is evidence from across the world that links self-care with reduced burnout and better patient outcomes, there is little data on the self-care practices of North Indian HCWs. This study explores self-care practices, the prevalence of burnout, and the level of institutional support in urban and rural healthcare facilities in North India to assist in developing targeted policies

### Conceptual Framework

The conceptual framework includes self-care as an individual resilience factor that affects burnout outcomes (emotional exhaustion, depersonalization, and personal accomplishment). Institutional support (counseling, mental health leave, and wellness initiatives) is a moderator. Gender and region are interaction variables that cumulatively affect vulnerability, especially in rural female healthcare professionals.[4]

## METHODOLOGY

### Study Design and Population

A cross-sectional survey was administered to 600 HCWs (physicians, nurses, and other support staff) from Delhi, Punjab, Haryana, Uttar Pradesh, and Rajasthan during January – December 2023 at their respective tertiary care centers.

- *Sampling frame:* Full-time registered doctors, nurses, and allied health staff in Delhi, Punjab, Haryana, Uttar Pradesh, and Rajasthan.
- *Recruitment:* Institutional permission taken; electronic informed consent obtained.
- *Ethical approval:* Institutional Ethics Committee (IEC/2022/45).

### Inclusion Criteria

1. Healthcare workers who are full-time employed and have more than one year of experience.
2. Stratified sampling by profession (physicians/nurses/other staff), sex, urban or rural area.

### Data Collection

1. *Self-care practices:* Measured by the WHO Self-Care Index (0-20), which considers the individual's level of engagement in physical activity, rest, sleep, diet, and breaks taken for mental health.(Table-1)
2. *Burnout:* Evaluated using the Maslach Burnout Inventory (emotional exhaustion, depersonalization, personal accomplishment).(Table-2)
3. *Institutional support:* Offered includes counseling, paid leave, &wellness programs at work.(Table-3)

### Statistical Analysis

Data were analyzed using SPSS v28. ANOVA used for group comparisons. Cohen's d values, odds ratios (OR), 95% confidence intervals (CI), and regression coefficients were provided. The interaction term was assessed: gender by region.[5](Table-4)

## RESULTS

Urban healthcare workers (HCWs) scored significantly higher in self-care at 14.2 versus their rural counterparts who self-reported care at 9.8 with a p value $< 0.001$ suggesting a strong statistical difference. Proportionately greater rural HCWs (74%) experienced high emotional exhaustion relative to urban HCWs (52%), and this difference was also significant ($p = 0.002$). In addition, the amount of

 

counseling services available was higher in urban areas (65%) compared to rural (28%) with a p value < 0.001.

**Table 1.** Self-Care Practices and Burnout by Region (Urban vs. Rural)

| Parameter | Urban HCWs (n=320) | Rural HCWs (n=280) | *p*-value |
|---|---|---|---|
| Mean Self-Care Score | 14.2 ± 3.1 | 9.8 ± 2.7 | <0.001 |
| High Emotional Exhaustion (%) | 52% | 74% | 0.002 |
| Access to Counseling (%) | 65% | 28% | <0.001 |

**Table 2.** Gender Differences in Self-Care and Burnout

| Parameter | Male HCWs (n=260) | Female HCWs (n=340) | *p*-value |
|---|---|---|---|
| Mean Self-Care Score | 12.1 ± 3.4 | 10.3 ± 2.9 | 0.01 |
| Work-Family Conflict (%) | 44% | 68% | <0.001 |
| Depersonalization Score | 18.2 ± 5.1 | 22.5 ± 6.3 | 0.003 |

**Table 3.** Institutional Support by Profession

| Parameter | Doctors (n=200) | Nurses (n=300) | Allied Staff (n=100) | *p*-value |
|---|---|---|---|---|
| Paid Mental Health Leave (%) | 55% | 32% | 18% | <0.001 |
| Workplace Wellness Programs (%) | 60% | 40% | 25% | 0.001 |

**Table 4.** Expanded regression model (emotional exhaustion as outcome)

| Predictor | β / OR | 95% CI | p-value |
|---|---|---|---|
| Self-Care Score | β = -0.42 | -0.51 to -0.33 | <0.001 |
| Institutional Support Index | β = -0.35 | -0.44 to -0.26 | <0.001 |
| Rural (vs Urban) | OR = 2.61 | 1.78–3.84 | 0.002 |
| Gender × Region | β = 0.18 | 0.03–0.33 | 0.02 |

Table 2 shows profound differences in self-care and burnout by gender among healthcare workers. Male HCWs outscored females in self-care with a reported 12.1 while females reported 10.3, this was statistically significant (p = 0.01). The work-family conflict was much more pronounced for female HCWs where 68% were affected compared to only 44% of males (p = 0.001). Also, female HCWs scored higher for depersonalization at 22.5 than males at 18.2 which was statistically significant at p=0.003.

Table 3 illustrates how institutional support differs among healthcare professions. Doctors reported the highest access to paid mental health leave (55%) and workplace wellness programmes (60%) followed by nurses (32% and 40% respectively) while allied staff reported the lowest support, with only 18% receiving paid mental health leave and 25% having access to wellness programmes. These differences were statistically significant with p values of < 0.001 and 0.001 respectively.

Table 4 summarizes the regression findings for the selected predictors. The Self-Care Score showed a significant negative association with the outcome (β = -0.42, 95% CI: -0.51 to -0.33, p < 0.001), indicating that better self-care is linked to a lower likelihood of the adverse outcome. The Institutional Support Index was also significantly protective (β = -0.35, 95% CI: -0.44 to -0.26, p < 0.001), meaning higher institutional support is associated with reduced risk. Participants living in rural areas had significantly higher odds of the outcome compared to urban residents (OR = 2.61, 95% CI: 1.78–3.84, p = 0.002), about 2.6 times greater likelihood. The Gender × Region interaction was significant (β = 0.18, 95% CI: 0.03–0.33, p = 0.02), suggesting that the effect of gender on the outcome varies by

 

region. Overall, stronger self-care and institutional support reduce risk, while rural residence and the combined effect of gender and region increase vulnerability.

## DISCUSSION

Results are consistent with international burnout literature on the protective effects of self-care. Yet, relative to high-income countries where evidence-based wellness programs are being developed, rural Indian institutions have limited access to paid mental health leave (18% of allied staff). Organizational inequalities, hierarchical work culture, and gendered responsibilities at home contribute to burnout risk.[6]

The study provides an understanding of the gaps in self-care and burnout among health workers in North India. Urban HCWs appear to practice more self-care than their rural counterparts. This may be attributed to better infrastructure, easier access to support systems, and a more organised work setting compared to their rural counterparts. However, rural HCWs demonstrated higher degrees of emotional burnout (74%) and reported significantly lower access to counselling (28%). These findings support the concerns about the lack of mental health infrastructure affecting rural Indians [2].

There were also marked differences based on gender. Male HCWs practised greater self-care than their female counterparts. This could be an effect of the dual burden some women face due to family obligations. Prior work by these researchers [3], substantiates our findings that female HCWs often experience heightened work-family conflict, which was also validated in our study (68% among women vs 44% among men). Higher scores on depersonalization among women point towards emotionally protective detachment which jeopardizes patient care and one's personal wellbeing.[7]

Support within institutions differed significantly between professional categories. Unlike allied staff, doctors had greater access to mental health leave and wellness services. This division highlights underlying resource inequities within Indian healthcare institutions, revealing deep-seated inequalities in resource distribution and prioritization of staff wellbeing. The near absence of support afforded to nurses and allied staff is all the more troubling in light of their vital role at the frontline of care and their high burnout risk [1].

Equally challenging are the inequalities that lie within institutional structures. Paid leave (18%) and wellness programme (25%) allowance provided to allied staff is emblematic of their disproportionate influence as low-tier healthcare workers, reinforcing systemic inequitable bias. Such inequities risk perpetuating cycles of burnout that may compromise patient safety and workforce retention.[8]

The overarching policy implications underscore a systemic disregard for the welfare of India's healthcare practitioners that arises from inadequate policies. Considering the existence of well-documented associations between the wellbeing of providers and healthcare outcomes, providing adequate self-care and support systems for healthcare workers becomes an imperative not only of occupational health but also public health.[9-16]

## CONCLUSION

The healthcare disparities outlined in this research relate to self-care, burnout, and institutional support for workers in North India. Rural HCWs and women suffer disproportionately from higher rates of burnout and inadequate mental health support. Doctors receive more institutional support than nurses and allied staff, which accentuates the inequities within the professional hierarchy. All these factors point to a lack of systemic mental health care self-sustaining care frameworks that enable healthcare workers of all tiers to practice equitable self-care.

### Limitations

 

There may be biases in self-reported information, including recall bias and social desirability bias. The cross-sectional nature of the study prevents causal analysis. Longitudinal and hybrid studies are suggested.

**Recommendations**

1. *Rural mental health infrastructure gaps:* Access to counselling services can be improved by increasing telemedicine availability.
2. Gender-responsive scheduling reforms, and equitable mental health leave policies
3. Mandatory wellness audits, and tele-mental health expansion for rural facilities,
4. *Strengthening gender equity programmes:* The work-family conflict for female HCWs can be reduced with the provision of childcare services, flexible work schedules, and gender sensitivity training.
5. *Adequate paid leave and wellness access:* All staff in nursing or allied positions should be provided with wellness programmes and paid leave on the same basis as doctors.
6. *Health care self-care programmes:* Rural HCWs should be taught the WHO Self-Care Index as part of their continuing education.
7. *Self-care training programmes:* National policies should be developed that recognise acute burnout syndrome as an occupational hazard which requires reporting and the allocation of appropriate resources.
8. Incorporate self-care and stress management into teaching and training frameworks for medicine and nursing, as well as into continuous professional education.
9. Healthcare organizations should be mandated to regularly assess and publish reports concerning employees' wellbeing, including burnout levels and support service utilization.

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