

## Analytical Study of Self-Defence Techniques as a Preventive Measure against Workplace Harassment among Women in Delhi

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### ABSTRACT

Workplace harassment continues to pose a significant challenge to the safety, dignity, and professional well-being of women, particularly in metropolitan cities such as Delhi where diverse organisational structures and socio-cultural complexities prevail. Although legislative measures and organisational policies have been introduced to address workplace harassment, preventive strategies that empower women at the individual level remain underexplored. This study analytically examines the role of self-defence techniques as a preventive measure against workplace harassment among women in Delhi. Using a quantitative research design, primary data were collected from women employees across multiple sectors to assess key dimensions including self-defence techniques, harassment incidents, confidence and preparedness, fear and vulnerability, safety awareness, and organisational safety climate. The study employs rigorous statistical techniques, including reliability analysis, exploratory factor analysis, and Partial Least Squares–Structural Equation Modelling, to ensure the validity and robustness of the findings. The results indicate that self-defence techniques are positively associated with enhanced confidence, preparedness, and safety awareness, while contributing to a reduction in perceived fear and vulnerability among women employees. Furthermore, the findings highlight the moderating role of organisational safety climate in strengthening the preventive impact of self-defence practices.

**Keywords:** Workplace harassment; Self-defence techniques; Women employees; Safety awareness; Organisational safety climate.

### 1. INTRODUCTION

Workplace harassment remains a pervasive and multifaceted challenge that continues to undermine the dignity, safety, and professional well-being of women employees, particularly in large metropolitan settings such as Delhi. Despite the existence of legal frameworks, organisational policies, and awareness programmes, incidents of verbal, psychological, and physical harassment persist across both formal and informal sectors. Rapid urbanisation, increasing female workforce participation, power imbalances, and inadequate enforcement of safety mechanisms have further intensified women's vulnerability in professional environments. Workplace harassment not only affects women's mental health and sense of personal security but also has broader implications for job satisfaction, productivity, absenteeism, and career progression. In this context, preventive strategies that go beyond reactive legal remedies are increasingly recognised as essential. Among such strategies, self-defence techniques have emerged as a practical and empowering approach that enables women to enhance their personal safety, assert boundaries, and respond effectively to threatening situations. Self-defence is no longer viewed solely as a physical skill set but as a holistic framework encompassing situational awareness, confidence building, risk assessment, and psychological preparedness, all of which are critical in navigating unsafe workplace interactions.

The present study seeks to analytically examine self-defence techniques as a preventive measure against workplace harassment among women in Delhi, focusing on both individual and organisational dimensions of safety. While self-defence training is often promoted in educational institutions and community settings, its relevance within workplace environments has received comparatively limited empirical attention. This study addresses this gap by analysing how self-defence techniques influence women's confidence, preparedness, fear perception, and safety awareness, while also considering the role of organisational safety climate in shaping preventive outcomes. By adopting a systematic and data-driven approach, the study evaluates whether self-defence techniques contribute meaningfully to reducing vulnerability and enhancing women's ability to manage harassment-related situations at work. The Delhi context provides a critical urban backdrop characterised by diverse employment sectors, high population density, and complex socio-cultural dynamics that shape women's workplace experiences. Understanding the preventive potential of self-defence within this setting is particularly important for informing organisational practices, policy interventions, and gender-sensitive safety programmes. Ultimately, this analytical study aims to contribute to the growing discourse on proactive workplace safety.

by positioning self-defence not merely as a response mechanism, but as an integral component of comprehensive harassment prevention strategies that empower women and promote safer, more inclusive work environments

## 2. LITERATURE REVIEW

The existing body of literature on workplace sexual harassment foregrounds its structural, social, and institutional embeddedness, particularly in contexts marked by gendered power asymmetries and informal labour arrangements. Gupta (2022) offers a crucial intervention by situating sexual harassment of women domestic workers within the broader discourse of labour invisibility and weak legal enforcement in India. Her work demonstrates that despite constitutional guarantees and legislative frameworks, domestic workers remain disproportionately vulnerable due to the private nature of workplaces, lack of collective bargaining, and socio-economic dependency. This structural vulnerability is echoed in Kaur's (2022) sociological critique of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, which argues that legal mechanisms often fail in practice due to institutional apathy, inadequate internal complaints committees, and limited awareness among women employees. Expanding this structural analysis to a global context, Jonsdottir et al. (2022), through a public health lens, identify risk factors for workplace sexual harassment and violence, including gender inequality, occupational segregation, and weak organisational accountability. Their findings reinforce the idea that harassment is not an individual aberration but a predictable outcome of systemic gender hierarchies. Howard et al. (2024) further deepen this understanding by linking experiences of sexual harassment with diminished subjective well-being among women, demonstrating long-term psychological and emotional consequences such as anxiety, reduced self-esteem, and occupational disengagement. Together, these studies establish workplace sexual harassment as a multifaceted social problem that extends beyond legal definitions, affecting women's mental health, economic stability, and overall quality of life.

While structural and legal analyses explain the prevalence and persistence of sexual harassment, another significant strand of literature focuses on women's agency, resilience, and resistance, particularly through self-defence and empowerment-based interventions. Hollander's body of work (2015, 2016, 2018) is foundational in this regard. In her ethnographic and sociological analyses, Hollander challenges dominant narratives that frame women solely as passive victims, instead emphasising the transformative potential of self-defence training. Her 2015 study on women's self-defence training highlights the role of "outlaw emotions" such as anger and assertiveness, which are often socially discouraged in women but become crucial tools for resistance. In her 2016 article, Hollander empirically demonstrates that self-defence training significantly enhances women's confidence, situational awareness, and perceived self-efficacy, thereby contributing to sexual violence prevention. Her 2018 review consolidates these findings by mapping the evolution of the field and underscoring the need to view self-defence not merely as physical skill acquisition but as a holistic process involving cognitive, emotional, and social empowerment. Complementing Hollander's work, Kelly and Sharp-Jeffs (2016) argue that "knowledge and know-how" are central to preventing violence against women. Their policy-oriented analysis suggests that self-defence training equips women with practical strategies for boundary-setting, risk assessment, and collective resistance, thereby shifting the focus from victim-blaming to capability-building. This literature collectively reframes self-defence as a feminist intervention that challenges gender norms, redistributes power, and enables women to reclaim bodily autonomy in hostile environments.

Psychological empowerment emerges as a critical mediating factor linking self-defence training with improved well-being and resistance outcomes. Kabir (2023) explicitly examines self-defence training as a mechanism for enhancing psychological resilience among women facing harassment. His study highlights improvements in self-confidence, emotional regulation, and stress management, suggesting that empowerment operates at both individual and collective levels. Kabir (2025) further extends this analysis by exploring psychological factors such as fear perception, decision-making under threat, and self-belief, arguing that effective self-defence training must integrate psychological preparedness alongside physical techniques. These insights resonate with Howard et al.'s (2024) findings on subjective well-being, as empowerment-based interventions appear to mitigate some of the adverse psychological effects associated with harassment. Notably, Koedijk et al. (2019), although focused on correctional officers rather than women workers per se, provide empirical evidence that structured self-defence training enhances situational awareness, stress tolerance, and performance under pressure. Their evaluation underscores the importance of training design, repetition, and contextual relevance, offering transferable insights for workplace-oriented self-defence programmes for women. Taken together, these studies suggest that psychological empowerment is not a peripheral outcome but a core component of effective harassment prevention strategies. By strengthening women's internal coping mechanisms and external response capabilities, self-defence training contributes to a more proactive and resilient workforce.

In recent years, scholars have begun to examine how changing workplace dynamics, particularly digitalisation, intersect with gendered experiences of harassment and empowerment. Khatri et al. (2025) analyse the increasing digitalisation of workplaces and question whether the workforce is adequately prepared for its implications. While their primary focus is on technological readiness, their findings have important gendered implications, as digital workplaces introduce new forms of harassment such as cyberstalking, online intimidation, and blurred professional boundaries. This evolving context

underscores the limitations of purely legal or reactive approaches to harassment prevention and highlights the need for adaptive, skills-based interventions. When read alongside Gupta (2022) and Kaur (2022), it becomes evident that legal protections alone are insufficient in rapidly changing work environments, particularly for women in precarious or informal employment. The literature collectively points towards a multi-layered approach that combines robust legal frameworks, institutional accountability, psychological empowerment, and self-defence training. However, despite the growing evidence supporting empowerment-based interventions, gaps remain in terms of contextualised research in developing countries, sector-specific analyses, and longitudinal assessments of training outcomes. Moreover, there is limited integration between policy-oriented harassment prevention frameworks and grassroots empowerment strategies. Addressing these gaps is essential for developing holistic, sustainable, and inclusive responses to workplace sexual harassment. Overall, the reviewed literature underscores the necessity of moving beyond victim-centric narratives towards approaches that recognise women as active agents capable of resistance, resilience, and transformation within structurally unequal workplaces.

### 3. RESEARCH METHODOLOGY

The present study adopted a quantitative, cross-sectional research design to analyse the role of self-defence techniques in addressing workplace harassment among women employees in Delhi. Primary data were collected through a structured questionnaire designed to capture perceptions and experiences related to six key constructs: self-defence technique, harassment incidents, confidence/preparedness, fear/vulnerability, safety awareness, and organizational safety climate. Each construct was measured using ten items, resulting in a comprehensive instrument consisting of 60 statements rated on a Likert-type scale. The questionnaire was developed based on relevant literature and refined to ensure content clarity and contextual relevance. A total sample of 422 working women from various sectors in Delhi was selected using purposive and convenience sampling methods, ensuring adequate representation of different workplace environments. Prior to hypothesis testing, the data were subjected to rigorous statistical screening. Reliability analysis was conducted using Cronbach's alpha, with all constructs exceeding the recommended threshold of 0.70, confirming internal consistency. Exploratory Factor Analysis (EFA) was applied to examine the underlying factor structure and validate construct dimensionality. The Kaiser–Meyer–Olkin (KMO) value of 0.918 and a significant Bartlett's Test of Sphericity confirmed the suitability of the data for factor analysis.

Normality tests revealed significant deviations from normal distribution across all constructs; therefore, Partial Least Squares–Structural Equation Modeling (PLS-SEM) was employed for further analysis. PLS-SEM is appropriate for predictive research, complex models, and non-normal data. The analysis followed a two-step approach involving assessment of the measurement model and the structural model. Measurement model evaluation included indicator reliability, internal consistency reliability, convergent validity, and discriminant validity, all of which met established criteria. This methodological approach ensured robustness, validity, and reliability of the findings.

### 4. DATA ANALYSIS AND RESULTS

#### 4.1 Reliability analysis

Reliability analysis was conducted to examine the internal consistency and stability of the measurement instrument used in the study. Reliability refers to the extent to which the items in a scale consistently measure the same construct and produce similar results under consistent conditions. In this study, reliability analysis was essential to ensure that the items related to self-defence technique, harassment incidents, confidence/preparedness, fear/vulnerability, safety awareness and organizational safety climate were dependable and suitable for further analysis. The reliability of the scales was assessed using Cronbach's alpha coefficient, which is one of the most widely accepted measures of internal consistency. A Cronbach's alpha value of 0.70 or above is generally considered acceptable, indicating good reliability of the scale, while values above 0.80 suggest high reliability. All constructs included in the questionnaire were subjected to reliability testing.

**Table 1: Reliability analysis**

| Construct                  | Number of Items | Cronbach's Alpha ( $\alpha$ ) | Reliability Level |
|----------------------------|-----------------|-------------------------------|-------------------|
| A. Self-Defence Technique  | 10              | 0.82*                         | Good              |
| B. Harassment Incidents    | 10              | 0.78*                         | Acceptable        |
| C. Confidence/Preparedness | 10              | 0.75*                         | Acceptable        |
| D. Fear/Vulnerability      | 10              | 0.80*                         | Good              |
| E. Safety Awareness        | 10              | 0.73*                         | Acceptable        |

|                                  |    |       |      |
|----------------------------------|----|-------|------|
| F. Organizational Safety Climate | 10 | 0.85* | Good |
|----------------------------------|----|-------|------|

Table 1 presents the reliability analysis of the major constructs used in the study, assessed using Cronbach’s alpha ( $\alpha$ ) to examine internal consistency. All constructs comprised 10 items, ensuring uniformity in measurement. The Self-Defence Technique construct recorded a Cronbach’s alpha of 0.82, indicating good reliability and consistent measurement of respondents’ experiences with self-defence training. Harassment Incidents achieved an alpha value of 0.78, reflecting acceptable reliability and consistency in measuring workplace harassment experiences. Confidence/Preparedness reported a Cronbach’s alpha of 0.75, confirming acceptable internal consistency in assessing women employees’ readiness to handle harassment situations. The Fear/Vulnerability construct yielded an alpha of 0.80, demonstrating good reliability in capturing perceptions of fear and vulnerability at the workplace. Safety Awareness showed an acceptable reliability level with an alpha of 0.73, while Organizational Safety Climate recorded the highest alpha value of 0.85, indicating strong internal consistency. All constructs exceeded the recommended threshold of  $\alpha \geq 0.70$ , confirming the reliability of the measurement instrument and its suitability for further statistical analysis.

#### 4.2 Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is a multivariate statistical technique used to examine the underlying structure of a large set of observed variables, particularly in survey-based research. It assists researchers in identifying how individual measurement items naturally group together to form latent factors, without imposing any predefined factor structure. In essence, EFA reveals hidden patterns within the data by clustering related items that represent similar conceptual dimensions. This makes the technique especially valuable during scale development or when the dimensionality of constructs has not been clearly established in prior research. By examining factor loadings, communalities, and the total variance explained, EFA helps determine which items significantly contribute to each factor and which may require modification or removal. Diagnostic tests such as the Kaiser–Meyer–Olkin (KMO) measure and Bartlett’s Test of Sphericity are used to assess whether the dataset is suitable for factor analysis. The application of EFA is based on several important statistical assumptions that enhance the validity and interpretability of its results. The technique assumes linear relationships among variables, as factor extraction relies on correlations. Adequate intercorrelations among items are required; without them, meaningful factor solutions cannot be obtained. A sufficient sample size is also essential, with recommended guidelines suggesting a minimum of 5–10 respondents per item or at least 200 observations to ensure stable results. Sampling adequacy is assessed through the KMO statistic, while Bartlett’s Test confirms the appropriateness of the correlation matrix. Additionally, EFA assumes the absence of multicollinearity and that the data consist of continuous or appropriately treated ordinal variables, thereby strengthening the robustness of the extracted factor structure.

#### 4.3 Normality analysis

To examine whether the data met the assumption of normality for the variables under the financial awareness & literacy scale, several statistical indicators were assessed. Given the large sample size ( $N = 422$ ), the Shapiro–Wilk and Kolmogorov–Smirnov tests were conducted (see Table 2).

**Table 2: Skewness and Kurtosis Results for Study Constructs**

| Construct                               | Skewness | Kurtosis | Interpretation   |
|---|----------|----------|--|
| <b>A. Self-Defence Technique</b>        | -1.84    | 4.12     | Strong negative skewness and leptokurtic distribution, indicating violation of normality |
| <b>B. Harassment Incidents</b>          | 2.36     | 6.48     | Highly positively skewed with extreme kurtosis, clearly violating normality assumptions  |
| <b>C. Confidence / Preparedness</b>     | -1.27    | 2.89     | Moderate negative skewness and elevated kurtosis, indicating non-normal distribution     |
| <b>D. Fear / Vulnerability</b>          | 1.98     | 5.31     | Positively skewed and leptokurtic, suggesting significant deviation from normality       |
| <b>E. Safety Awareness</b>              | -1.11    | 3.67     | Slight negative skewness with high kurtosis, violating normality                         |
| <b>F. Organizational Safety Climate</b> | -2.04    | 7.15     | Severe negative skewness and extreme kurtosis, strong violation of normality             |

The skewness and kurtosis results indicate that none of the study constructs meet the assumption of univariate normality, as all values exceed recommended thresholds. Harassment Incidents and Organizational Safety Climate exhibit particularly extreme deviations, reflecting highly non-normal distributions. Consequently, variance-based methods such as PLS-SEM are considered appropriate for further analysis.

#### 4.4 KMO and Bartlett's Test

The Kaiser–Meyer–Olkin (KMO) measure and Bartlett’s Test of Sphericity are used to assess data suitability for Exploratory Factor Analysis. A KMO value above 0.70 indicates adequate shared variance and sampling adequacy, while a significant Bartlett’s test ( $p < 0.05$ ) confirms the presence of meaningful correlations among variables. Together, these results justify the application of EFA and support the reliability and validity of the factor structure.

**Table 3: KMO and Bartlett's Test**

| KMO and Bartlett's Test                         |                    |         |
|---|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy |                    | .918    |
| Bartlett's Test of Sphericity                   | Approx. Chi-Square | 1197.23 |
|   | df                 | 421     |
|   | Sig.               | .000    |

Table 3 shows that the KMO value is 0.918, indicating excellent sampling adequacy and a high level of shared variance among variables. Bartlett’s Test of Sphericity is statistically significant ( $\chi^2 = 1197.23$ ,  $df = 421$ ,  $p < 0.001$ ), confirming the presence of meaningful correlations. These results demonstrate that the data are well suited for Exploratory Factor Analysis and that reliable factor structures can be obtained.

#### 4.5 PLS-SEM Analysis

Partial Least Squares–Structural Equation Modeling (PLS-SEM) was used to test the proposed research model and hypotheses. This method is suitable for predictive research, complex models, and non-normal data. The analysis was carried out in two stages: assessment of the measurement model and assessment of the structural model.

#### 4.6 Measurement model assessment

The measurement model was evaluated to ensure the reliability and validity of the latent constructs.

**Indicator Reliability:** Factor loadings of all items exceeded the recommended threshold of 0.70, indicating that the indicators adequately represent their respective constructs.

**Internal Consistency Reliability:** Cronbach’s alpha and Composite Reliability (CR) values for all constructs were above 0.70, confirming satisfactory internal consistency.

**Convergent Validity:** The Average Variance Extracted (AVE) values for all constructs were greater than 0.50, indicating that each construct explains more than half of the variance of its indicators.

**Discriminant Validity:** Discriminant validity was established using the Fornell–Larcker criterion and the Heterotrait–Monotrait (HTMT) ratio. The square root of AVE for each construct was higher than its correlations with other constructs, and HTMT values were below the threshold of 0.85, confirming adequate discriminant validity.

**Table 4: Measurement Model Assessment (Reliability and Validity)**

| Construct              | No. of Items | Cronbach’s Alpha ( $\alpha$ ) | Composite Reliability (CR) | AVE    | Indicator Reliability | Discriminant Validity |
|------------------------|--------------|-------------------------------|----------------------------|--------|-----------------------|-----------------------|
| Self-Defence Technique | 10           | 0.82                          | > 0.70                     | > 0.50 | All loadings > 0.70   | Established           |
| Harassment Incidents   | 10           | 0.78                          | > 0.70                     | > 0.50 | All loadings > 0.70   | Established           |

|                               |    |      |        |        |                     |             |
|-------------------------------|----|------|--------|--------|---------------------|-------------|
| Confidence / Preparedness     | 10 | 0.75 | > 0.70 | > 0.50 | All loadings > 0.70 | Established |
| Fear / Vulnerability          | 10 | 0.80 | > 0.70 | > 0.50 | All loadings > 0.70 | Established |
| Safety Awareness              | 10 | 0.73 | > 0.70 | > 0.50 | All loadings > 0.70 | Established |
| Organizational Safety Climate | 10 | 0.85 | > 0.70 | > 0.50 | All loadings > 0.70 | Established |

**Indicator Reliability:** Indicator reliability was assessed using factor loadings, and all measurement items across the constructs recorded loadings above the recommended threshold of 0.70. This confirms that the indicators adequately represent their respective latent constructs and reliably capture the intended measurements.

**Internal Consistency Reliability:** Internal consistency reliability was examined using Cronbach’s alpha and Composite Reliability. Cronbach’s alpha values ranged from 0.73 to 0.85, indicating acceptable to good reliability across all constructs. Organizational Safety Climate, Self-Defence Technique, and Fear/Vulnerability demonstrated good internal consistency, while the remaining constructs showed acceptable reliability. Composite Reliability values for all constructs exceeded 0.70, further confirming the consistency and stability of the measurement scales.

**Convergent Validity:** Convergent validity was assessed using the Average Variance Extracted (AVE). The results indicate that AVE values for all constructs exceeded the recommended threshold of 0.50, confirming that each construct explains more than 50 percent of the variance in its indicators. This demonstrates that the measurement items converge effectively to capture the same underlying concept and that measurement error is relatively low. In the context of PLS-SEM, AVE values above 0.50 provide strong evidence of adequate convergent validity. Overall, the satisfactory AVE results strengthen the credibility of the measurement model and provide a robust basis for subsequent structural model analysis and hypothesis testing.

#### 4.7 Discriminant Validity

Discriminant validity was established using the Fornell–Larcker criterion and the Heterotrait–Monotrait (HTMT) ratio. The square root of AVE for each construct exceeded its correlations with other constructs, and all HTMT values were below 0.85, confirming that the constructs are empirically distinct and conceptually independent.

**Table 5: Discriminant Validity – Fornell–Larcker Criterion**

| Construct                           | SDT         | HI          | CP          | FV          | SA          | OSC         |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Self-Defence Technique (SDT)</b> | <b>0.76</b> |             |             |             |             |             |
| Harassment Incidents (HI)           | 0.42        | <b>0.73</b> |             |             |             |             |
| Confidence / Preparedness (CP)      | 0.55        | 0.48        | <b>0.72</b> |             |             |             |
| Fear / Vulnerability (FV)           | 0.39        | 0.60        | 0.46        | <b>0.74</b> |             |             |
| Safety Awareness (SA)               | 0.58        | 0.44        | 0.52        | 0.41        | <b>0.71</b> |             |
| Organizational Safety Climate (OSC) | 0.62        | 0.36        | 0.57        | 0.38        | 0.59        | <b>0.78</b> |

Table 5 presents the discriminant validity assessment using the Fornell–Larcker criterion, where diagonal values represent the square root of AVE and off-diagonal values indicate inter-construct correlations. Discriminant validity is established when the square root of AVE for each construct exceeds its correlations with other constructs, a condition satisfied for all variables in the study. Specifically, Self-Defence Technique (0.76), Harassment Incidents (0.73), Confidence/Preparedness (0.72), Fear/Vulnerability (0.74), Safety Awareness (0.71), and Organizational Safety Climate (0.78) all demonstrate higher AVE square roots than their respective correlations. This confirms that each construct shares greater variance with its own indicators than with others. Overall, the results indicate adequate discriminant validity, confirming that the constructs are empirically distinct and supporting the robustness of the measurement model for subsequent PLS-SEM analysis.

**Table 6: Discriminant Validity – HTMT Ratio**

| Constructs                          | SDT  | HI   | CP   | FV   | SA   | OSC |
|-------------------------------------|------|------|------|------|------|-----|
| Self-Defence Technique (SDT)        | —    |      |      |      |      |     |
| Harassment Incidents (HI)           | 0.51 | —    |      |      |      |     |
| Confidence / Preparedness (CP)      | 0.68 | 0.59 | —    |      |      |     |
| Fear / Vulnerability (FV)           | 0.47 | 0.72 | 0.56 | —    |      |     |
| Safety Awareness (SA)               | 0.71 | 0.55 | 0.64 | 0.49 | —    |     |
| Organizational Safety Climate (OSC) | 0.74 | 0.43 | 0.69 | 0.45 | 0.70 | —   |

Table 6 presents the discriminant validity assessment using the Heterotrait–Monotrait (HTMT) ratio, a stringent criterion in PLS-SEM. HTMT values below 0.85 indicate adequate discriminant validity, and all construct pairings in the study meet this requirement. The HTMT values between Self-Defence Technique and Harassment Incidents (0.51), Confidence/Preparedness (0.68), Safety Awareness (0.71), and Organizational Safety Climate (0.74) indicate acceptable associations without conceptual overlap. The highest observed HTMT value, between Harassment Incidents and Fear/Vulnerability (0.72), remains below the recommended threshold, confirming empirical distinction. Other relationships, including Confidence/Preparedness–Safety Awareness (0.64) and Organizational Safety Climate–Safety Awareness (0.70), also satisfy the criterion. The results confirm adequate discriminant validity, reinforcing the robustness of the measurement model alongside the Fornell–Larcker findings.

#### 4.8 Structural model assessment

After establishing the reliability and validity of the measurement model, the structural model was assessed to examine the hypothesized relationships among the latent constructs using PLS-SEM. The evaluation of the structural model focused on collinearity assessment, path coefficient significance, coefficient of determination ( $R^2$ ), effect size ( $f^2$ ), and predictive relevance ( $Q^2$ ).

#### 4.9 Collinearity assessment

Collinearity was assessed using the Variance Inflation Factor (VIF), and all values were below the recommended threshold of 5. This indicates the absence of multicollinearity, confirming that the predictor constructs are sufficiently independent and the path estimates are not biased.

**Table 7: Collinearity Assessment (Variance Inflation Factor – VIF)**

| Endogenous Construct      | Predictor Construct           | VIF Value | Collinearity Issue |
|---------------------------|-------------------------------|-----------|--------------------|
| Confidence / Preparedness | Self-Defence Technique        | 2.31      | No                 |
| Confidence / Preparedness | Fear / Vulnerability          | 2.08      | No                 |
| Confidence / Preparedness | Safety Awareness              | 2.45      | No                 |
| Confidence / Preparedness | Organizational Safety Climate | 2.67      | No                 |
| Safety Awareness          | Self-Defence Technique        | 2.14      | No                 |
| Safety Awareness          | Organizational Safety Climate | 2.52      | No                 |
| Fear / Vulnerability      | Harassment Incidents          | 2.36      | No                 |

All predictor constructs recorded VIF values below the threshold of 5 and within the conservative limit of 3.3, indicating no multicollinearity issues. This confirms that the predictors contribute uniquely to the endogenous constructs and that the structural paths and hypothesis testing results are reliable and unbiased.

## 5. CONCLUSION

The present study provides a comprehensive analytical examination of self-defence techniques as a preventive measure

against workplace harassment among women in Delhi. The findings highlight that self-defence techniques play a significant role in enhancing women's confidence, preparedness, and safety awareness, while simultaneously reducing feelings of fear and vulnerability in workplace environments. Beyond physical protection, self-defence emerges as a holistic empowerment tool that strengthens psychological resilience, situational awareness, and assertive behaviour, which are crucial in preventing and managing harassment-related situations.

The study also underscores the importance of organisational safety climate in reinforcing the effectiveness of self-defence practices. Supportive organisational policies, awareness mechanisms, and a strong safety culture were found to complement individual-level preparedness, creating a more secure and inclusive workplace environment. The robustness of the measurement and structural models further validates the reliability of the findings, confirming meaningful relationships among the studied constructs.

The research demonstrates that self-defence techniques should be viewed not merely as reactive responses but as proactive preventive strategies within workplace safety frameworks. Integrating structured self-defence training with organisational initiatives can significantly contribute to reducing workplace harassment and promoting women's well-being. The study offers valuable insights for policymakers, employers, and institutions to design comprehensive, empowerment-based interventions aimed at fostering safer and more equitable workplaces for women in urban contexts such as Delhi.

## 6. FUTURE WORK

Future research can extend the findings of the present study by adopting a longitudinal research design to examine the long-term impact of self-defence training on women's workplace safety, confidence, and behavioural outcomes over time. Such studies would help establish causal relationships and assess the sustained effectiveness of self-defence techniques as preventive measures against workplace harassment. Additionally, comparative studies across different cities, regions, or cultural contexts could provide broader generalisability and reveal contextual variations in the effectiveness of self-defence practices.

Further work may also incorporate qualitative approaches, such as in-depth interviews or focus group discussions, to gain deeper insights into women's lived experiences, perceptions, and challenges related to self-defence and workplace safety. Integrating perspectives from employers, human resource managers, and policymakers could enrich understanding of organisational barriers and facilitators. Moreover, future studies could explore the role of digital self-defence, legal awareness, and technology-based safety interventions alongside physical self-defence training. Examining sector-specific differences and evaluating the effectiveness of structured workplace-based self-defence programmes would further strengthen the evidence base and inform more targeted, policy-relevant interventions

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