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Psychological Factors in Self-defence: Addressing Sexual Harassment in Delhi Workplaces

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Abstract
This study explores the psychological factors influencing self-defence performance, with a focus on Krav Maga as an intervention against workplace sexual harassment in Delhi. A mixed-methods design was employed, involving 256 women from various professional sectors and in-depth interviews with 30 participants who completed a 12-week Krav Maga training program. The findings indicate that Krav Maga training significantly improved self-efficacy, situational awareness, and response readiness, while reducing anxiety and fear related to potential harassment. These psychological improvements also enhanced workplace confidence and overall well-being. The research contributes to the growing evidence that tactical self-defence training addresses both the physical and psychological aspects of workplace harassment. An integrative framework for organizational implementation is proposed, emphasizing psychological preparedness in conjunction with physical techniques.
Keywords*: Sexual harassment, Workplace Safety, Self-defence, Krav Maga, Psychological factors, Self-efficacy, Delhi women's safety*

INTRODUCTION

Workplace sexual harassment persists as a pervasive global issue, with particular severity in the metropolitan centres of developing countries. In Delhi, India's capital, governmental surveys indicate that approximately 57% of employed women have experienced some form of workplace sexual harassment during their careers (Ministry of Women and Child Development, 2023). These experiences carry deep psychological consequences, undermining job satisfaction, hindering professional advancement, and contributing to a toxic organizational climate (McLaughlin et al., 2017).While legislative frameworks such as the Sexual Harassment of Women at Workplace Act (2013) establish a legal foundation for prevention and redress, they remain insufficient in isolation. Institutional mechanisms often falter in the face of entrenched power dynamics and cultural norms that deter reporting. In this context, self-defence training emerges as a proactive, individualized strategy to enhance women's personal safety and psychological resilience. Among the array of available systems, Krav Maga—a tactical defence discipline developed in Israel has drawn increasing attention due to its emphasis on instinctive, context-responsive techniques suited to real-life threat scenarios (Levine & Whitman, 2016; Mor, 2021).The relevance of Krav Maga in workplace settings lies not only in its physical applications but also in its psychological impact. Self-defence is fundamentally a psychological endeavour: constructs such as self-efficacy, emotional

regulation, situational awareness, and decision-making under pressure are pivotal to effective response (Bandura, 1997; Hollander, 2018). In environments shaped by hierarchies and social power imbalances, particularly in Delhi, these psychological dimensions can determine whether and how a woman can resist, avoid, or report harassment (Spiliopoulou & Witcomb, 2023).Moreover, self-defence training must be culturally contextualized. In India, normative constraints related to gender, authority, and physical engagement complicate assertive action. Delhi poses specific challenges, including societal discomfort with male-female physicality, deference to hierarchical authority, and familial scepticism toward women's participation in combative disciplines (Follo, 2024; Strucic, 2021). As Cermele and McCaughey (2017) emphasize, training models that are culturally responsive adapting to social and institutional realities are more likely to succeed than universalized approaches that ignore local conditions. Despite a growing body of research on self-defence and sexual harassment, several gaps persist. There is limited empirical inquiry into Krav Maga's effectiveness in civilian workplace contexts, especially in terms of its psychological impact. Few studies integrate constructs such as emotional regulation, perceived efficacy, or trauma-informed pedagogy into evaluations of training outcomes (Woźniak, 2019; Foa, Hembree, & Rothbaum, 2018). Additionally, the Delhi metropolitan region remains underexplored despite its socio-cultural and organizational complexities. This study addresses these gaps by investigating the psychological mechanisms underpinning effective self-defence in workplace sexual harassment contexts. Specifically, it examines the impact of Krav Maga training on working women in Delhi, with a focus on the interaction between psychological preparedness and physical competence. The following research questions guide the inquiry: (1) What psychological factors influence self-defence performance in harassment scenarios? (2) How does Krav Maga training affect these psychological variables? (3) In what ways do psychological and physical preparedness interact in shaping defensive efficacy? (4) How do Delhi's sociocultural and organizational environments influence the applicability and outcomes of such training?

METHODOLOGY

Research Design

This study employed a mixed-methods, sequential explanatory design integrating quantitative and qualitative components. Quantitative data were collected first through structured surveys, followed by qualitative data obtained via semi-structured interviews and field observations. This design enabled statistical analysis of broad trends and an in-depth exploration of participant experiences and psychological outcomes.

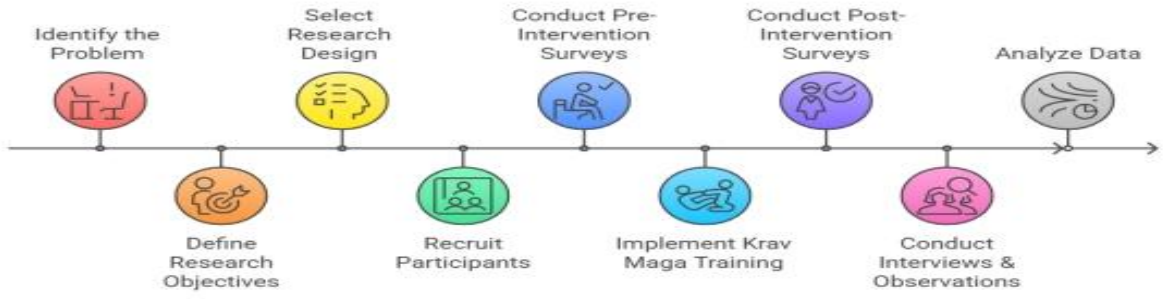

Figure 1: Research Study on Krav Maga's Impact

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3.2 PARTICIPANTS

A total of 256 women employed in formal sectors across Delhi were recruited through workplace announcements and women's professional networks. Eligibility criteria included being aged between 21 and 55 years and having a minimum of six months of continuous employment in Delhi. The study sample was drawn from six occupational domains: technology, education, healthcare, government, hospitality, and corporate services.From the initial survey sample, 120 women volunteered for a 12-week Krav Maga training program. Of these, 108 completed the full course. Subsequently, 30 participants were purposively selected for qualitative interviews using maximum variation sampling based on age, profession, prior harassment experiences, and self-defence familiarity.

Exclusion Criteria for the Study

Exclusion criteria included males or non-working individuals, women under 21 or over 55 years, individuals with extensive prior self-defence training (over 50 hours), those with medical conditions contraindicating physical activity, pregnant individuals, and those unwilling to commit to the entire program. Demographic data are presented in Table 1.

Table 1: Demographic Characteristics of Study Participants

Characteristic	**Survey Sample (n=256)**	**Training Program (n=108)**	**Interview Sample (n=30)**
Age (years)			
21-30	112 (43.8%)	52 (48.1%)	12 (40.0%)
31-40	87 (34.0%)	36 (33.3%)	10 (33.3%)
41-55	57 (22.2%)	20 (18.5%)	8 (26.7%)
Industry Sector			
Technology	58 (22.7%)	27 (25.0%)	7 (23.3%)
Education	47 (18.4%)	21 (19.4%)	6 (20.0%)
Healthcare	42 (16.4%)	14 (13.0%)	4 (13.3%)
Government	39 (15.2%)	16 (14.8%)	5 (16.7%)
Hospitality	35 (13.7%)	15 (13.9%)	4 (13.3%)
Corporate/Other	35 (13.7%)	15 (13.9%)	4 (13.3%)
Prior Harassment Experience			
Reported Yes	137 (53.5%)	67 (62.0%)	18 (60.0%)
Reported No	89 (34.8%)	32 (29.6%)	9 (30.0%)

Preferred not to say	30 (11.7%)	9 (8.3%)	3 (10.0%)
Prior Self-defence Training			
None	198 (77.3%)	78 (72.2%)	22 (73.3%)
Limited (<10 hours)	43 (16.8%)	21 (19.4%)	5 (16.7%)
Moderate (10-50 hours)	12 (4.7%)	7 (6.5%)	2 (6.7%)
Extensive (>50 hours)	3 (1.2%)	2 (1.9%)	1 (3.3%)

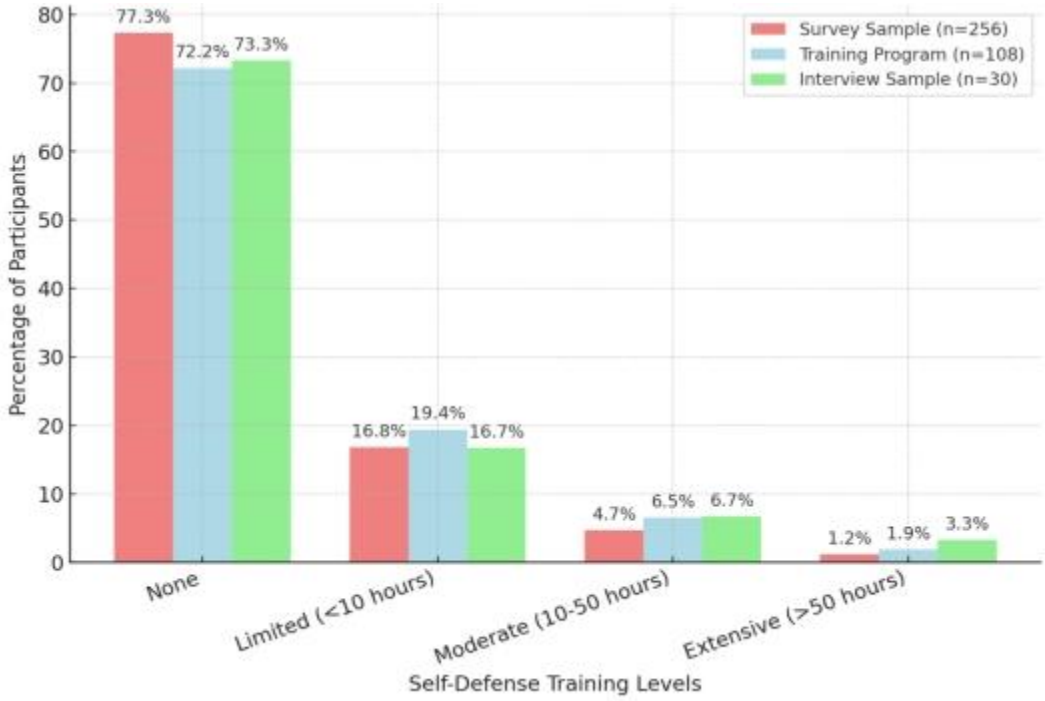

Figure 2: Self-defence Training Levels Across Study Samples

The study included 256 survey participants, of whom 108 completed the Krav Maga training program, and 30 participated in in-depth interviews. Most participants were aged 21-30 years (43.8%), followed by 31-40 years (34.0%), and 41-55 years (22.2%). Participants represented various industries, with the highest representation from technology (22.7%), education (18.4%), and healthcare (16.4%). Over half (53.5%) of respondents had experienced workplace harassment, with this percentage rising to 62.0% among trained participants, indicating a strong need for self-defence education. Additionally, 77.3% had no prior self-defence training, and only 1.2% had extensive experience (>50 hours). These findings highlight the lack of self-defence exposure among working women and the necessity for structured training programs to enhance psychological and physical preparedness.

Training Protocol for Krav Maga Self-defence Program

The Krav Maga intervention consisted of a 12-week training regimen, held twice weekly for 90-minute sessions. Instruction was provided by certified Krav Maga trainers, including two female instructors to support gender-sensitive facilitation.

Training Phases

The curriculum was delivered in three progressive phases:

Phase 1: Foundational Skills (Weeks 1–4) focused on developing basic techniques such as defensive stances, palm and knee strikes, and wrist escapes. Psychological emphasis was placed on building awareness, assertiveness, and threat recognition.

Phase 2: Scenario-Based Practice (Weeks 5–8) introduced workplace-relevant simulations. Physical instruction included techniques for escaping holds and using environmental objects for defence, while psychological training emphasized emotional regulation and verbal de-escalation.

Phase 3: High-Stress Simulation (Weeks 9–12) involved complex scenarios requiring rapid response under pressure. Participants practiced defence in confined spaces, facing multiple attackers, and in professional attire. Mental preparedness was cultivated through exercises in decision-making under stress.Participant progress was continuously evaluated through a combination of baseline and final surveys, midpoint instructor feedback, and a final simulated workplace scenario. Safety protocols were maintained throughout, and all sessions were delivered in a trauma-informed and culturally responsive manner.

Data Collections Instruments and Procedure

Quantitative data were collected from all 256 participants using validated instruments. These included:

Demographic questionnaire
Workplace Sexual Harassment Experiences Inventory (WSHEI)
Self-defence Self-Efficacy Scale (SDSES)
State-Trait Anxiety Inventory (STAI)
Situational Awareness Measure
Perceived Workplace Safety Scale

Follow-up assessments were conducted with the 108 training completers. These included post-intervention administration of SDSES, STAI, and situational awareness measures, as well as items capturing self-reported behavioural changes and program satisfaction. Qualitative data were gathered from 30 selected participants through semi-structured interviews (lasting 45–60 minutes), direct observation of 24 training sessions, and instructor evaluations. Interviews explored participants' psychological responses to training, application of techniques, and perceived facilitators and barriers to implementing skills in real workplace contexts.

Data Analysis

Quantitative data were analyzed using SPSS Version 27. Descriptive statistics profiled the sample, while paired sample t-tests evaluated changes in psychological measures. Multiple regression analyses explored associations between psychological outcomes and participant demographics.Qualitative data were thematically analyzed using Braun and Clarke's (2006) six-step method. Two independent researchers conducted initial coding, followed by collaborative theme development. NVivo 14 was used to manage and analyze transcripts. Member checking with a subset of participants confirmed the validity of emergent themes.

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Findings from both data streams were integrated at the interpretation stage to triangulate results and contextualize statistical outcomes within real-world narratives.

RESULTS

Descriptive statistics from the pre-intervention survey revealed key psychological variables relevant to self-defence readiness. Table 2 summarizes the baseline values for self-efficacy, anxiety, situational awareness, and perceived workplace safety.

Table 2: Baseline Psychological Factors (n=256)

Measure	Mean	SD	Range
Self-defence Self-Efficacy	2.84	0.92	1-5
State Anxiety (Harassment Scenarios)	3.76	0.88	1-5
Trait Anxiety	3.12	0.79	1-5
Situational Awareness	3.21	0.83	1-5
Perceived Response Options	2.63	0.95	1-5
Decisiveness Under Pressure	2.91	1.06	1-5
Perceived Workplace Safety	3.07	1.12	1-5

Participants exhibited moderate to high anxiety levels in harassment-related scenarios and moderate scores for situational awareness and decisiveness under pressure. Notably, self-efficacy and perceived response options were relatively low, suggesting limited confidence in confronting threatening workplace situations.

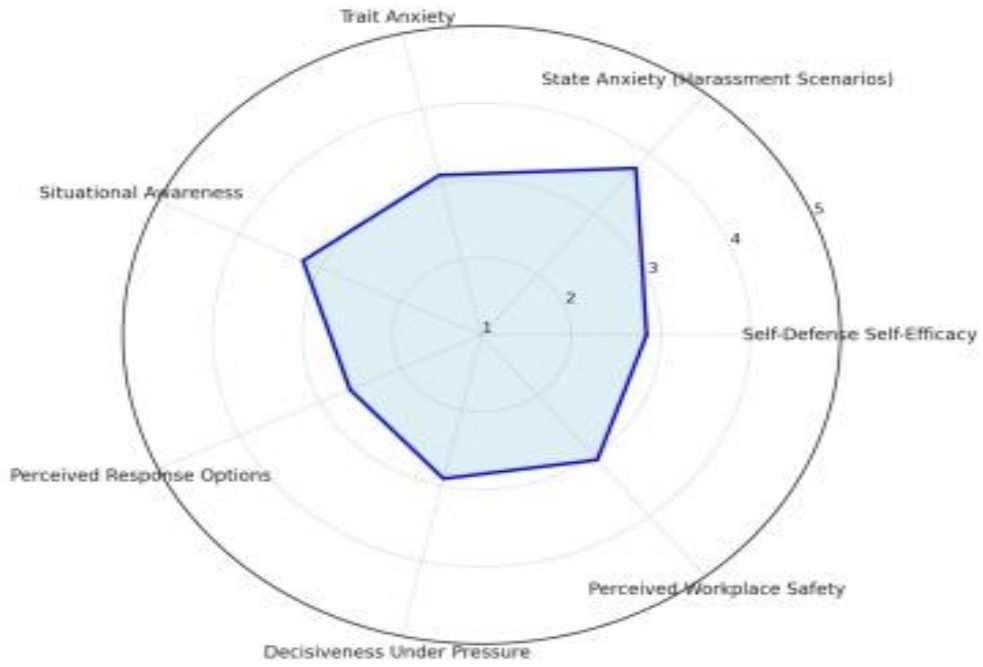

Figure 3: Radar Chart of Psychological Factors

The Radar Chart visually represents the baseline psychological factors influencing self-defence readiness among participants before Krav Maga training. The chart highlights high levels of anxiety (State Anxiety: 3.76, Trait Anxiety: 3.12), indicating significant psychological distress related to workplace harassment. Self-defence self-efficacy (2.84) and perceived response options (2.63) were relatively low, suggesting participants lacked confidence in their ability to respond effectively. While situational awareness (3.21) and decisiveness under pressure (2.91) were moderate, they were not strong enough to ensure immediate action in threatening situations. Additionally, perceived workplace safety (3.07) was low, reflecting concerns about security in professional environments. Overall, the radar chart highlights key psychological gaps in preparedness, which the Krav Maga training aimed to improve by enhancing confidence, awareness, and response effectiveness.Paired-sample t-tests were conducted to assess changes in psychological outcomes among the 108 participants who completed the full 12-week Krav Maga training. Table 3 displays pre- and post-intervention means, standard deviations, mean differences, t-values, p-values, and effect sizes (Cohen's d).

Table 3: Changes in Psychological Measures Following Training (n = 108)

Measure	**Pre-Mean (SD)**	**Post-Mean (SD)**	**Mean Difference**	**t-value**	**p-value**	**Cohen's d**
Self-defence Self-Efficacy	2.79 (0.89)	4.26 (0.73)	1.47	14.82	<0.001	1.42
State Anxiety (Harassment Scenarios)	3.81 (0.92)	2.65 (0.85)	-1.16	-11.27	<0.001	1.08
Situational Awareness	3.16 (0.79)	4.18 (0.67)	1.02	10.89	<0.001	1.05
Perceived Response Options	2.58 (0.91)	4.07 (0.75)	1.49	13.56	<0.001	1.30
Decisiveness Under Pressure	2.88 (1.03)	3.91 (0.86)	1.03	8.72	<0.001	0.84
Perceived Workplace Safety	3.02 (1.09)	3.83 (0.96)	0.81	6.53	<0.001	0.63

All changes were statistically significant at $p < .001$. The largest effects were observed for self-defence self-efficacy ($d = 1.42$), perceived response options ($d = 1.30$), and situational

awareness (d = 1.05). Reductions in state anxiety (d = 1.08) further indicate substantial improvement in participants' emotional regulation in harassment contexts. These results confirm the psychological efficacy of structured Krav Maga training.Qualitative analysis of interview data revealed five emergent psychological themes: embodied confidence, reappraisal of threat, action readiness, emotional regulation, and boundary consciousness. Participants described feeling more alert and empowered, with many reporting a redefinition of personal boundaries and increased capacity to assert themselves verbally and physically.However, organizational and cultural barriers persisted. Several participants cited limitations in applying techniques due to professional attire or fear of repercussions from superiors. Others mentioned lingering internalized gender norms, illustrating the importance of coupling self-defence training with broader workplace policy changes.These findings support the development of the Psychological Self-defence Readiness (PSDR) framework, which integrates both internal (psychological) and external (contextual) factors shaping effective workplace self-defence.

DISCUSSION

This study presents compelling evidence that Krav Maga self-defence training enhances psychological readiness among working women in Delhi, specifically in contexts involving workplace sexual harassment. Across quantitative measures, participants exhibited significant improvements in self-efficacy, situational awareness, response preparedness, and perceived safety. These gains were accompanied by marked reductions in anxiety, suggesting not only enhanced physical capability but also emotional resilience.These findings corroborate and extend previous literature on empowerment-based self-defence interventions. As Hollander (2018) and DeGue et al. (2014) have emphasized, such programs are most effective when they target both psychological and behavioural competencies. The particularly strong effect observed in self-defence self-efficacy aligns with Bandura's (1997) theoretical framework, which posits that mastery experiences and reductions in affective arousal are critical for the development of personal agency. Similarly, improved decision-making under pressure echoes Woźniak's (2019) arguments concerning the role of cognitive appraisals in effective threat response.Krav Maga's scenario-based pedagogy appears to have played a central role in fostering these outcomes. Unlike avoidance-oriented techniques, its emphasis on active resistance, boundary assertion, and tactical adaptability aligns closely with Orchowski et al.'s (2020) recommendation for violence prevention programs that simulate realistic threat environments. This approach also reflects trauma-informed principles, allowing participants to engage in controlled exposure to potentially triggering stimuli while building psychological resilience (Foa et al., 2018).Nevertheless, the qualitative findings reveal that sociocultural and institutional constraints continue to mediate the practical application of self-defence skills. Participants reported reluctance to deploy physical resistance due to organizational hierarchies, fear of retaliation, or concerns about workplace attire. These challenges echo prior observations by Cermele & McCaughey (2017) and Saran et al. (2023), who argue that self-defence programs must be adapted to cultural norms and embedded within supportive institutional frameworks.Thus, while Krav Maga training proved effective at the individual level, its broader utility depends on structural integration into workplace safety strategies. This supports the introduction of a Psychological Self-defence Readiness (PSDR) framework, combining individual psychological capacity with organizational policy reform. Recommendations include integrating such training into harassment prevention initiatives, tailoring instruction to occupational constraints, and promoting inclusive, trauma-informed delivery models.However, several limitations must be acknowledged. The study's participants were self-selected and potentially more motivated than the general workforce, which may limit generalizability. The

absence of a control group precludes strong causal inference, and the follow-up period was insufficient to assess long-term retention or real-world incident response. Future studies should address these gaps using randomized designs, longitudinal tracking, and cross-sectoral implementation trials. An intersectional perspective would enrich our understanding of how self-defence training interfaces with broader systems of social inequity. Socioeconomic status, caste, and religious identity may all shape access to training, experiences of harassment, and perceived legitimacy of resistance. Addressing these dimensions will be vital in creating truly inclusive and effective interventions.

CONCLUSION

This study highlights the multifaceted value of Krav Maga as a strategic intervention to enhance women's psychological preparedness against workplace sexual harassment. By significantly improving self-defence self-efficacy, situational awareness, and emotional resilience, Krav Maga empowered participants to perceive and respond to threats with greater confidence and control. These psychological gains extend beyond physical defence, fostering a broader sense of agency and security in the workplace.However, the efficacy of training must be considered within the sociocultural and institutional contexts in which individuals operate. Organizational hierarchies, gender norms, and cultural expectations shape the application of self-defence skills. Therefore, Krav Maga and similar interventions should be integrated into comprehensive workplace safety frameworks, which include policy reform, bystander training, and inclusive leadership practices.The proposed Psychological Self-defence Readiness (PSDR) framework provides a foundation for future program design, emphasizing the integration of mental, physical, and contextual preparedness. To maximize effectiveness, future research should adopt longitudinal and intersectional approaches, ideally collaborating with employers and policymakers.This study underscores that self-defence is not merely a physical act but also a psychological and political one—an assertion of autonomy in environments that often undermine it. Trauma-informed training interventions can serve as both a shield and a catalyst, empowering women not only to defend themselves but to reshape the spaces they occupy.

REFERENCES

1. Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.
2. Bagaric, Z., & Strucic, E. (2021). Correlation analysis of Krav Maga athletes' sociodemographic characteristics and their leadership competencies. *Proceedings of IHSES*, 385–404.
3. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa
4. DeGue, S., Valle, L. A., Holt, M. K., Massetti, G. M., Matjasko, J. L., & Tharp, A. T. (2014). A systematic review of primary prevention strategies for sexual violence perpetration. *Aggression and Violent Behavior*, 19(4), 346–362. https://doi.org/10.1016/j.avb.2014.05.004
5. Di Bacco, V. E., Taherzadeh, M., Birot, O., & Gage, W. H. (2020). The effects of single versus multiple training sessions on the motor learning of two Krav Maga strike techniques, in women. *PeerJ*, *8*, e8525. https://doi.org/10.7717/peerj.8525
6. Foa, E. B., Hembree, E. A., & Rothbaum, B. O. (2018). *Prolonged exposure therapy for PTSD: Emotional processing of traumatic experiences*. Oxford University Press.
7. Follo, G. (2024). Navigation of training and advancement in karate and Krav Maga. *Martial Arts Studies*, (15). Retrived from: https://mas.cardiffuniversitypress.org/articles/175/files/668d302da5dd3.pdf
8. Hollander, J. A. (2018). Empowerment self-defence for women: Current evidence for its efficacy and future directions for research. *Violence Against Women*, 24(9), 1068–1088. Retrived from: https://jocelynhollander.com/wp-content/uploads/2021/04/ESD-paper-pdf.pdf
9. Levine, D., & Whitman, J. (2016). *Complete Krav Maga: The ultimate guide to over 250 self-defence and combative techniques* (2nd ed.). Ulysses Press. https://books.google.com/books/about/Complete_Krav_Maga.html?id=5vXW_oGlZ8wC
10. Levine, P. A. (2010). *In an unspoken voice: How the body releases trauma and restores goodness*. North Atlantic Books. Retrived from: https://books.google.com/books/about/In_an_Unspoken_Voice.html?id=ie09As4SaLMC
11. Cermele, J., & McCaughey, M. (2022). Self-defence as an effective and neglected form of sexual assault prevention: A commentary and overdue correction to the literature. *Sex Roles, 86*, 493–503. https://doi.org/10.1007/s11199-022-01284-3

12. McLaughlin, H., Uggen, C., & Blackstone, A. (2017). The economic and career effects of sexual harassment on working women. *Gender & Society, 31*(3), 333-358. https://journals.sagepub.com/doi/10.1177/0891243217704631
13. Ministry of Women and Child Development. (2023). *Annual report on implementation of Sexual Harassment of Women at Workplace Act, 2013.* Government of India.
14. Mor, G. (2021). *History and singularity of Krav-Maga*. In M. Green (Ed.), *The Routledge Handbook of Global Sport* (pp. 123–135). Routledge. https://doi.org/10.4324/9781003142126-8
15. Orchowski, L. M., Edwards, K. M., Hollander, J. A., Banyard, V. L., Senn, C. Y., & Gidycz, C. A. (2020). Integrating Sexual Assault Resistance, Bystander, and Men's Social Norms Strategies to Prevent Sexual Violence on College Campuses: A Call to Action. *Trauma, violence & abuse*, *21*(4), 811–827. https://doi.org/10.1177/1524838018789153
16. Pietsch, N. (2015). Barriers to reporting sexual harassment. *Learning Network Brief* (26). Learning Network, Centre for Research and Education on Violence Against Women and Children. Retrived from: http://www.gbvlearningnetwork.ca/
17. Saran, A., Hunt, X., White, H., & Kuper, H. (2023). Effectiveness of interventions for improving social inclusion outcomes for people with disabilities in low- and middle-income countries: A systematic review. *Campbell systematic reviews*, *19*(1), e1316. https://doi.org/10.1002/cl2.1316
18. Spiliopoulou, A., & Witcomb, G. L. (2022). An exploratory investigation into women's experience of sexual harassment in the workplace. *Violence Against Women, 29*(9), 1853–1873. https://doi.org/10.1177/10778012221114921
19. Strucic, E., Bagaric, Z., & Lasic-Lazic, J. (2021). *Identification of relationship between the Krav Maga self-defence system and the transformational leadership using principal component analysis*. In *ICERI2021 Proceedings* (pp. 8264–8272). IATED. https://doi.org/10.21125/iceri.2021.1892
20. Woźniak, M. (2019). The issue of self-defence based on crisis management and combat system Krav Maga. *Przegląd Strategiczny, 9*(12), 233–245. https://doi.org/10.14746/ps.2019.1.15