



FINAL PROJECT REPORT

ERGONOMICS TRAINING FOR TEXTILE AND GARMENT WORKERS

Reducing Musculoskeletal Disorders (MSDs)

Implemented by SAVE, Tirupur | February–March 2025

Supported by Developing World Outreach Initiative (DWOI) and Maquiladora Health & Safety Support Network (MHSSN)

1. INTRODUCTION

Founded in 1993 in the heart of Tirupur, Social Awareness and Voluntary Education (SAVE) is a non-profit organization that has dedicated itself to advocating for labor rights, combating child labor, and empowering women, especially within the vulnerable textile and garment sectors. Over the years, SAVE has built a deep-rooted presence within these communities, focusing on improving the lives of migrant workers and marginalized groups. The organization's approach is grounded in its strong grassroots networks and collaborative partnerships with local unions, civil society groups, and government bodies, enabling it to drive meaningful, long-term change across Tamil Nadu.

SAVE's commitment goes beyond mere intervention; it is about transforming the workplace into a space where workers, especially migrant laborers, can thrive with dignity, safety, and a voice in the decisions that affect their lives. For decades, SAVE has worked hand-in-hand with these workers, understanding their struggles and advocating for their rights, while also fostering a culture of empowerment.

The ergonomics training program is a direct extension of SAVE's core mission to enhance the health, safety, and well-being of workers in the garment sector. With textile and garment factories being the backbone of the economy in regions like Tirupur, workers often face long hours of physically demanding labor, frequently under unsafe conditions. This initiative reflects SAVE's ongoing commitment to improving not just the economic standing of workers, but their quality of life and overall dignity. By equipping workers with the knowledge and skills to reduce physical strain, the program aims to give them the tools to protect their health, advocate for their own safety, and ultimately help them reclaim agency within the global garment supply chain.

This training is part of a broader vision; a vision where workers are not just seen as cogs in the production machine, but as individuals who deserve fair treatment, better working conditions, and the opportunity to live healthy, fulfilling lives. SAVE remains steadfast in its pursuit of a world where labor rights are not just a privilege but a fundamental guarantee for every worker.

2. EXECUTIVE SUMMARY



In February and March of 2025, Social Awareness and Voluntary Education (SAVE) successfully launched a comprehensive initiative to address the pressing health concerns of workers in the textile and garment industry in Tirupur District, Tamil Nadu. Over the course of these two months, 9 in-person training sessions on ergonomics were conducted in the communities, directly benefiting 358 workers; 80 men and 278 women, from various garment factories across the district. This training program was specifically designed to help workers tackle the widespread issue of musculoskeletal disorders (MSDs), which are often caused by the repetitive and physically demanding nature of their work. SAVE's initiative focused on practical ergonomics education, equipping workers with essential knowledge and skills to reduce physical strain, improve their health, and prevent injuries that are common in the garment sector.

One of the key elements of the program was its targeted outreach to migrant workers, who frequently face barriers in accessing workplace health and safety education. SAVE's training approach was rooted in hands-on demonstrations and participatory learning to ensure that workers could not only understand the theoretical aspects of ergonomics but also confidently apply them in their day-to-day tasks. The sessions were designed to be interactive, giving participants opportunities to engage directly with the content, ask questions, and practice what they were learning in real-time.

Each of the 9 sessions took place in distinct localities throughout Tirupur, ensuring that workers from various communities had access to the training. Participants were invited from both large and small factories, ensuring a diverse representation of workers. The workshops were marked by high engagement levels and positive feedback, with participants expressing how much they appreciated the practical tools and advice provided. Many workers shared stories of how they had already started applying ergonomic techniques to their daily tasks, reporting a noticeable reduction in discomfort and strain.

Additionally, the training sessions incorporated an action planning phase, where participants could reflect on what they had learned and devise personal and group action plans. These plans aimed to ensure that the knowledge gained during the training would continue to be put into practice long after the sessions had ended. This initiative is a part of SAVE's broader vision to create healthier, safer workplaces within the textile and garment sector, particularly for the most vulnerable workers, including migrants and women, who often face the toughest working conditions. The training not only addressed immediate ergonomic concerns but also contributed to long-term behavioural change, fostering a culture of health and safety within the workplace.

3. PROJECT BACKGROUND

Concept Overview

Garment and textile workers are often at the heart of the global fashion industry, yet they are some of the most vulnerable when it comes to occupational health risks. The very nature of their work, long hours, repetitive tasks, poor posture, and



frequently inadequate workstation setups, creates a perfect storm for musculoskeletal disorders (MSDs). These injuries can lead to chronic pain, decreased productivity, and diminished quality of life, yet they are often overlooked, especially among migrant workers who may not have access to adequate health education or support.

Recognizing these challenges, SAVE developed a training program aimed at promoting workplace health and well-being. The core of this initiative is an ergonomics workshop designed to educate workers on practical strategies to prevent MSDs and foster a culture of health and safety within the workplace. The program focuses on injury prevention, the adoption of safe working practices, and creating a sustainable, worker-led culture of occupational health and safety that can thrive long after the training ends.

Training Objectives

The overarching goal of the ergonomics training is not just to reduce injuries, but to create lasting change in the way workers view and approach their physical well-being in the workplace. The program was built around several key objectives, each designed to empower workers to take charge of their own health, and, by extension, to promote healthier, safer workplaces across the district.

- **Increase Knowledge of MSDs and Their Impact**

Many workers may not be fully aware of the risks posed by repetitive motion, poor posture, or unsafe lifting techniques. Through this training, participants gained a deeper understanding of the common musculoskeletal disorders (such as carpal tunnel syndrome, tendinitis, and chronic back pain) and how these injuries can drastically affect their physical health, quality of life, and ability to work. By highlighting the long-term consequences of untreated MSDs, the program empowered workers to take proactive steps in protecting their health.

- **Teach Practical Ergonomic Skills: Posture, Lifting, Workstation Setup**

The workshop focused on simple, yet effective ergonomic practices that workers can immediately apply. Participants learned how to optimize their posture, lift safely, and adjust their workstations to reduce strain. These practical skills were demonstrated through hands-on exercises, ensuring that workers could practice the techniques in real-time and receive feedback from the trainers. By equipping workers with these tools, the program aimed to reduce the physical stress of their daily tasks, fostering a healthier working environment.

- **Promote Daily Stretching and Self-Care Routines**

A key component of the training was the importance of self-care and stretching to alleviate muscle fatigue and prevent injuries. Participants learned simple, effective stretching exercises that could be easily incorporated into their daily routines, both before and after work. The program emphasized the need for frequent micro-pauses and movement breaks to keep muscles flexible, improve



circulation, and reduce the risk of strain. These exercises are essential in combating the sedentary and repetitive nature of textile work.

- **Empower Participants to Share Knowledge as Peer Educators**

This program wasn't just about individual change; it was about creating a ripple effect. SAVE aimed to empower participants to share their knowledge and train others within their workplaces and communities. By introducing a train-the-trainer model, the initiative sought to create a network of workers who would advocate for ergonomic practices, fostering a culture of peer support and continuous learning. In this way, the knowledge gained through the workshops could spread and multiply, ensuring that the benefits of the training would reach beyond the initial group of participants.

- **Encourage Workplace-Level Improvements in Safety and Ergonomics**

Beyond personal health practices, the program encouraged workers to advocate for systemic improvements in their workplaces. This included the adoption of ergonomic workstations, the introduction of healthier work practices, and fostering a safety-conscious culture within factories. Workers were encouraged to speak up about unsafe practices, request ergonomic assessments, and collaborate with supervisors and factory management to implement changes that benefit everyone. By giving workers, the knowledge and confidence to advocate for better working conditions, SAVE hoped to inspire lasting changes in the broader workplace culture.

4. TRAINING CONTENT & DELIVERY

The ergonomics training program followed a comprehensive 6-module curriculum designed to empower textile and garment workers with the knowledge and practical tools to prevent musculoskeletal disorders (MSDs) and improve workplace safety. The sessions combined interactive learning, hands-on demonstrations, and real-life applications to ensure that workers could effectively implement ergonomic practices in their daily routines.

Module 1: Understanding Musculoskeletal Disorders (MSDs) in Textile & Garment Work

Objective: To help workers recognize the risks and early signs of MSDs, encouraging prevention and early intervention.

In this module, participants were introduced to the concept of musculoskeletal disorders (MSDs), focusing on how they affect the health and productivity of workers in the textile and garment industry. Workers learned about common MSDs such as carpal tunnel syndrome, tendinitis, and chronic back pain, which are often caused by repetitive tasks, prolonged standing, and improper lifting techniques. Early warning signs and symptoms of MSDs were highlighted, along with the long-term consequences of untreated conditions on both health and job performance.



Activity: Participants engaged in interactive discussions and reviewed visual case studies showing real-life examples of MSDs within the garment sector, helping them identify early signs and understand their impact.

Module 2: Ergonomic Principles and Workstation Setup

Objective: To introduce practical ergonomic adjustments to reduce physical strain at work.

This module focused on the importance of ergonomics in preventing injuries. Participants learned how to maintain a neutral body posture and make simple but effective adjustments to their workstations, such as adjusting table heights, chair positions, and machine setups. Special emphasis was placed on optimizing posture during sewing, cutting, and ironing tasks, which are common in the textile industry. Workers also learned the value of micro-pauses and short breaks to reduce strain throughout their shifts.

Activity: Demonstrations of workstation adjustments were provided using real visuals from textile factories, giving participants a hands-on opportunity to see how to create ergonomic workspaces.

Module 3: Safe Handling and Movement Techniques

Objective: To teach workers proper lifting, carrying, and posture correction techniques to prevent injuries.

In this session, workers were taught essential techniques for safe handling and lifting, especially important when moving heavy materials. Proper lifting and carrying techniques were demonstrated to reduce strain on the back and shoulders, and workers were shown how to avoid awkward postures and repetitive strain injuries. Simple ergonomic tools such as anti-fatigue mats and wrist supports were also introduced to help alleviate discomfort during shifts.

Activity: Participants practiced correct lifting and carrying techniques using materials typical to their workplaces, allowing them to apply the lessons in real-time.

Module 4: Stretching and Exercises for Injury Prevention

Objective: To teach workers simple exercises to relieve tension, improve flexibility, and prevent injury.



This module focused on exercises and stretching routines designed to help workers manage muscle fatigue, enhance flexibility, and improve circulation. Participants learned warm-up and cool-down exercises to perform before and after shifts. Targeted stretches for the hands, shoulders, back, and legs were introduced, and the importance of hydration and taking movement breaks was emphasized as part of a holistic approach to injury prevention.

Activity: The group participated in guided stretching exercises, with step-by-step instructions to ensure that every worker felt confident in incorporating these routines into their daily work practices.

Module 5: Creating an Ergonomic Workplace Culture

Objective: To encourage workers to implement and promote ergonomic best practices within their workplaces.

In this module, the focus shifted to creating a culture of health and safety in the workplace. Workers were taught how to report discomfort and injuries early, how to advocate for ergonomic assessments, and the importance of collaboration between workers, supervisors, and management to improve working conditions. Participants also learned about their rights as workers and how collective action can lead to long-term improvements in workplace safety.

Activity: Small group discussions encouraged workers to share their experiences and brainstorm solutions to common ergonomic challenges they face in their workplaces.

Module 6: Practical Demonstrations and Hands-On Application

Objective: To reinforce learning through hands-on practice, giving participants the chance to apply what they had learned.

The final module was dedicated to hands-on application, ensuring that workers could practically implement the ergonomic techniques they had learned. Participants adjusted their own workstations according to ergonomic guidelines, practiced safe lifting techniques, and participated in role-playing exercises to identify and address ergonomic hazards in their workplaces.

Activity: Live demonstrations and participant-led workstation adjustments allowed workers to receive real-time feedback from trainers and peers, helping them perfect their ergonomic skills and better understand how to make sustainable changes.

Conclusion & Action Plan

The training concluded with a review of key takeaways and the creation of personal action plans. Each participant identified at least one ergonomic change they would make to improve their work routine. Group discussions encouraged sharing of



ideas, and workers were encouraged to share their knowledge with peers, fostering a sense of collective responsibility for improving health and safety in the workplace.

Final Activity: Participants shared their personal ergonomics improvement plans, committing to applying the new skills and techniques in their daily work. These plans were shared within the group to ensure mutual support and accountability.

5. TRAINING SCHEDULE & PARTICIPATION

Below is the list of all 9 training sessions conducted:

S. No	Date	Location	Gender	Participants
1	11-03-2025	VEERAPANDI	Women	46
2	17-03-2025	SAMUNDIPURAM	Women	53
3	19-03-2025	PERUMANALLUR	Women	31
4	20-03-2025	ROJA NAGAR	Women	30
5	20-03-2025	INDRA NAGAR	Women	40
6	22-03-2025	THIRUVALLUVAR NAGAR	Women	36
7	23-03-2025	VEERAPANDI	Men	29
8	23-03-2025	NEW TIRUPPUR	Men	51
9	26-03-2025	15 VELAMPALAYAM	Women	42
		TOTAL		358

6. OUTCOMES & IMPACT – PARTICIPANTS’ FEEDBACK (Pre & Post Training Assessment)

Question	Pre-training	Post-training	Key Takeaway
Q1: Musculoskeletal Disorders (MSDs)	73% of participants had no knowledge about MSDs.	97% of participants demonstrated strong knowledge, 55% reporting "very well" understanding.	Significant improvement in basic awareness of MSDs post-training.
Q2: Carpal Tunnel Syndrome (CTS)	69% of participants were unaware of CTS.	95% of participants understood CTS well, with 1% reporting no knowledge.	Major increase in knowledge about CTS as a musculoskeletal disorder.



Q3: Continuous Sewing Work and MSDs	66% didn't recognize the link between continuous sewing and MSDs.	96% of participants understood the connection between sewing work and MSDs.	Training effectively raised awareness of occupational risks in the garment industry.
Q4: Joint Pain as a Symptom of MSDs	64% were unaware that joint pain could be a symptom of MSDs.	96% recognized continuous joint pain as a key symptom.	Effective communication of key MSD symptoms.
Q5: Importance of Correct Posture to Reduce MSDs	91% lacked knowledge on how posture affects MSDs.	95% understood the importance of maintaining correct posture.	Strong retention of ergonomic posture techniques.
Q6: Workplace Setup to Prevent Repetitive Task Disorders	93% were unaware of how workplace setup impacts repetitive task injuries.	95% of participants understood the role of workplace ergonomics.	Clear understanding of ergonomic setups to prevent injuries.
Q7: Feet Position While Sitting	94% were unaware that feet should touch the ground or rest on a footrest.	96% had awareness of this ergonomic principle.	Key principle of seated posture successfully taught.
Q8: Correct Body Posture During Work	93% lacked knowledge of the 90° angle rule for hands and proper body alignment.	97% knew the correct posture.	The training effectively conveyed correct ergonomic posture.
Q9: Correct Posture While Sewing and Cutting	93% had limited knowledge of proper sewing posture.	95% of participants understood how to maintain good posture while sewing.	Training addressed practical posture techniques specific to sewing tasks.
Q10: Importance of Taking Regular Breaks	88% were unaware of the need for breaks during continuous tasks.	96% acknowledged the importance of taking breaks every 30 minutes.	Micro-breaks and their benefits were well communicated.
Q11: Safe Lifting Practices	90% did not know how to assess objects before lifting.	95% understood the importance of evaluating object weight, size, and stability.	Participants gained knowledge of safe lifting techniques.



Q12: Correct Posture When Lifting Objects	Only 4% knew the correct lifting technique.	95% of participants demonstrated knowledge of safe lifting posture.	Major improvement in awareness of correct lifting techniques.
Q13: Avoiding Twisting While Lifting	90% didn't know that twisting while lifting is unsafe.	95% understood that twisting is incorrect.	Proper lifting mechanics were well understood after training.
Q14: Repetitive Tasks Leading to Pain	91% were unaware that repetitive tasks can cause pain, numbness, and weakness.	95% recognized the impact of repetitive tasks on health.	Training successfully conveyed the risks of repetitive tasks.
Q15: Using Larger Muscles to Prevent Strain	90% did not know how using larger muscles could help prevent overstraining smaller ones.	97% understood the concept of muscle use to prevent strain.	Training emphasized proper muscle use to reduce injury risks.
Q16: Correct Wrist Stretching Method	92% had limited awareness of proper wrist stretching.	94% knew the correct wrist stretching technique.	Practical stretching methods were clearly communicated.
Q17: Correct Neck Stretching Technique	91% did not know the correct way to stretch their neck.	97% knew the correct neck stretch.	Stretching techniques were well absorbed by participants.
Q18: Purpose of Warm-up Exercises	92% were unaware of the purpose of warm-up exercises.	95% understood the need for warm-ups.	Training effectively conveyed the importance of warm-up exercises.
Q19: Movement During Work Breaks to Maintain Energy	91% did not know that movement helps maintain energy.	95% understood the importance of staying active during breaks.	Emphasis on active breaks to boost workplace energy levels.
Q20: Correct Movement in the Cat-Cow Stretch	Only 22% correctly identified the movement.	99% now correctly identified the Cat-Cow stretch movement.	Dramatic improvement in understanding specific stretches.
Q21: Open Communication for Ergonomic Risks	90% were unaware of the importance of communication	93% understood its significance.	Open communication was highlighted as a critical safety factor.



	regarding ergonomic risks.		
Q22: Purpose of Anonymous Complaint Systems	91% were unaware of the benefits of an anonymous complaint system.	94% understood the purpose.	The value of a complaint system was effectively conveyed.
Q23: Self-assessment Tools for Workers	90% did not know how self-assessment tools benefit workers.	95% understood their role.	Empowerment through self-monitoring was emphasized.
Q24: Cooperation as a Part of Workplace Safety	Only 10% recognized the link between cooperation and safety.	95% understood the importance of cooperation in maintaining a safe workplace.	Training fostered a collaborative safety culture.
Q25: Improving Ergonomic Conditions	89% were unaware of actions to improve ergonomic conditions.	95% now understood how to improve ergonomics.	Clear action steps for ergonomic improvements were well communicated.
Q26: Correct Height for Computer Screen	Only 32% knew the correct height for their computer screen.	88% had the correct knowledge.	Strong visual ergonomics instruction led to a significant knowledge increase.
Q27: Correct Height for Keyboard	10% knew the correct height for their keyboard.	92% understood the correct keyboard height.	Major gain in knowledge about workstation ergonomics.
Q28: Adjusting Chair's Back Support	12% knew how to adjust their chair's back support.	92% now understood how to adjust it properly.	Effective skill acquisition in workstation adjustments.
Q29: Correct Posture for Lifting Heavy Objects	7% knew the correct posture.	94% now understood proper lifting posture.	Excellent improvement in physical safety awareness.
Q30: Understanding the Final Objective of the Training	Only 6% were clear about the training's goal.	92% understood the overall objective.	Strong understanding of the training purpose was achieved.



Key Achievements

- Everyone walked away with a solid understanding of basic ergonomic practices, with the help of helpful videos on proper posture and stretching exercises that made the learning more relatable.
- All 358 workers took an active role in developing personal or group action plans, helping them apply what they learned to their own work environments and making changes that will stick.
- Participants showed a real improvement in their ability to spot potential MSD risks in their workplaces, which means they are now more aware and ready to address issues as they arise.
- We saw engagement from all groups, especially women and migrant workers, who were fully involved and shared their experiences throughout the sessions.
- The hands-on demonstrations and role-playing exercises, where workers got to practice ergonomic moves and stretches, were key in helping everyone retain what they learned and apply it to their daily routines.

Feedback & Observations:

- Workers expressed how grateful they were for shining a light on these often-ignored health risks. Many shared how they felt more empowered to protect their health.
- A number of participants have already started passing along what they've learned to their colleagues, creating a ripple effect of awareness and care throughout the workplace.
- Some participants even took the initiative to talk to management about potential workstation improvements, showing how committed they are to making real changes.
- Tools Introduced:
- We introduced anti-fatigue mats, which made standing on the job more comfortable and helped reduce strain during long hours.
- Wrist supports were given to help prevent injuries that can come from repetitive motions, especially for workers involved in tasks like sewing and cutting.
- To reinforce the learning, we handed out illustrated handouts with easy-to-follow exercises and tips, so everyone had a reference to take home.
- We also put up visual posters around the workplace, making sure the message of proper ergonomics and stretching exercises stayed visible and top of mind.

7. MONITORING, EVALUATION & NEXT STEPS

To ensure that the training was both effective and impactful, we've put in place several tools for monitoring and evaluation. These were designed to help us assess the immediate knowledge gain, track progress over time, and ensure that the learnings are being applied in the workplace.

Evaluation Tools:

- Pre- and Post-Training Questionnaires: Before and after the training, we asked participants to complete questionnaires. These helped us measure how much their knowledge had improved and where we could further support them.



- Daily Feedback Sessions: At the end of each day, we held quick feedback sessions where workers shared what worked well for them and what didn't. This allowed us to adjust and make sure that everyone was on the same page, feeling clear and confident about what they had learned.
- WhatsApp Groups for Ongoing Communication: To keep the momentum going, we set up WhatsApp groups for each location. These groups became spaces for workers to share questions, tips, and support each other, ensuring that learning didn't stop once the training was over. It also gave us an easy way to stay in touch and share useful resources.
- Post-Training Follow-ups (April–June 2025): Over the next few months, we will be checking in with participants to see how they've been implementing what they learned. This will help us assess whether the training had a lasting impact and where additional support might be needed.

8. RECOMMENDATIONS FOR FUTURE PROGRAMS:

As we look ahead, there are a few key recommendations to further strengthen the program and ensure that these important ergonomic practices are consistently adopted across the workplace.

- One of the most effective ways to make sure the changes stick is by having supervisors and factory managers on board. Their support and leadership will encourage workers to follow through with the new practices and create a more supportive environment for everyone.
- The more often we reinforce the learning, the better. Regular refresher trainings will help keep the concepts fresh in people's minds and ensure that the workers continue to feel supported as they implement the changes.
- Not everyone is comfortable with digital resources. Providing printed toolkits with ergonomic guidelines, exercises, and safety tips will make it easier for workers to reference the information right at their workstations.
- To continue the cycle of learning, we recommend forming peer educator groups in each area. These groups would be made up of trained individuals who can share their knowledge with their colleagues and help reinforce the importance of ergonomics. This peer-to-peer model ensures that knowledge continues to spread and that workers feel empowered to share their expertise with one another.

These steps will help us build on the progress made, creating a continuous cycle of learning and improvement. With these changes, we can create a more supportive and health-conscious environment for everyone, making ergonomics a key part of daily practice across the board.

Annexures

Annexure 01 – Photographs

Annexure 02 – MSD-Reference Images



Annexure 01 – Photographs
MSD Training Photos



















